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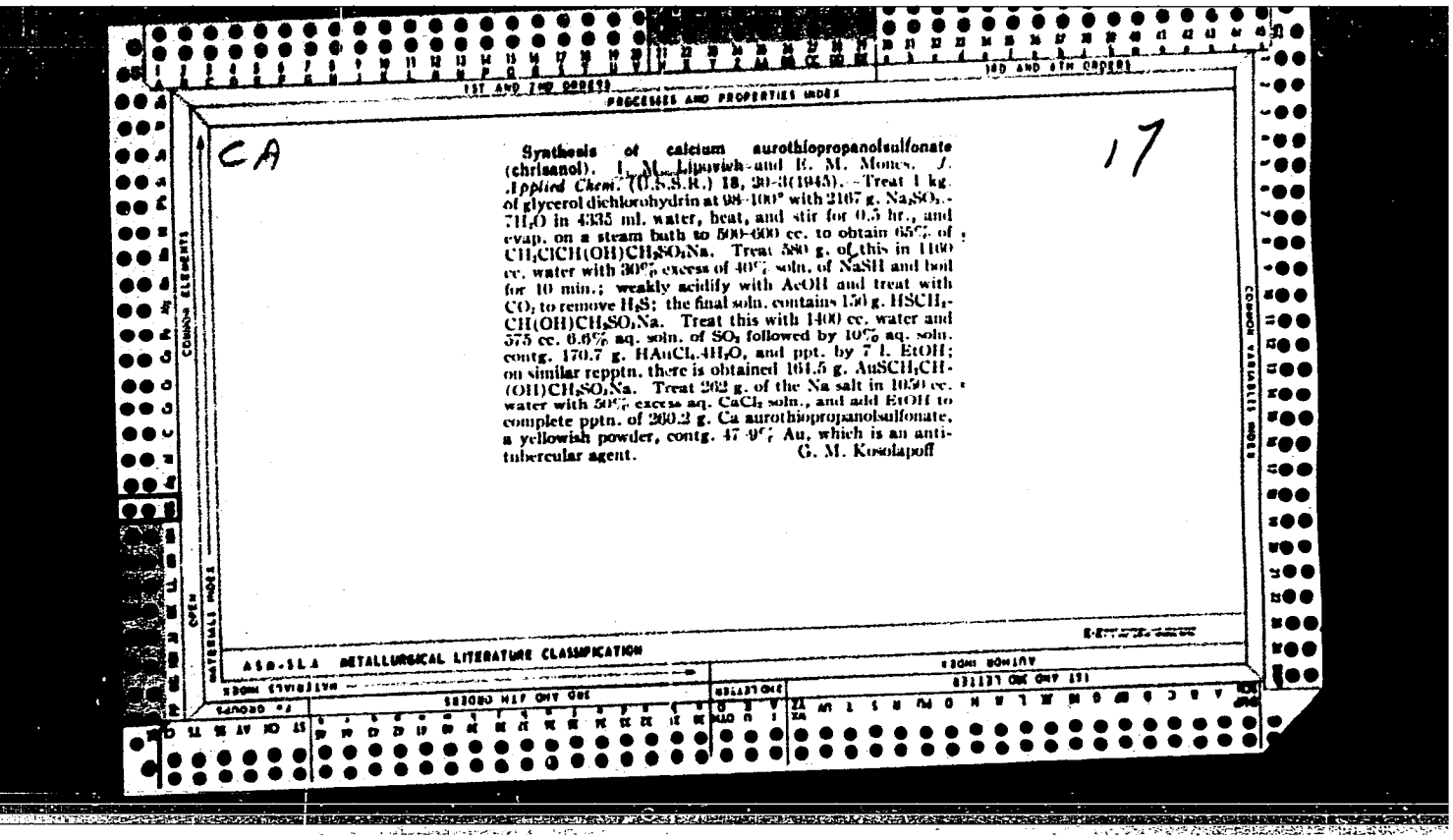

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Synthesis of calcium aurothiopropanolsulfonate (chrisanol). I. M. Lipovich and E. M. Moines. *J. Applied Chem.* (U.S.S.R.) 18, 30-3(1945). Treat 1 kg. of glycerol dichlorohydrin at 98-100° with 2107 g. $Na_2SO_3 \cdot 7H_2O$ in 4335 ml. water, heat, and stir for 0.5 hr., and evap. on a steam bath to 500-600 cc. to obtain 65% of $ClCH_2CH(OH)CH_2SO_3Na$. Treat 580 g. of this in 1100 cc. water with 30% excess of 40% soln. of NaSH and boil for 10 min.; weakly acidify with AcOH and treat with CO_2 to remove H_2S; the final soln. contains 150 g. $HSCH_2CH(OH)CH_2SO_3Na$. Treat this with 1400 cc. water and 575 cc. 6.6% aq. soln. of SO_2 followed by 10% aq. soln. contg. 170.7 g. $HAuCl_4.4H_2O$, and ppt. by 7 l. EtOH; on similar repptn. there is obtained 161.5 g. $AuSCH_2CH(OH)CH_2SO_3Na$. Treat 262 g. of the Na salt in 1050 cc. water with 50% excess aq. $CaCl_2$ soln., and add EtOH to complete pptn. of 260.2 g. Ca aurothiopropanolsulfonate, a yellowish powder, contg. 47.9% Au, which is an antitubercular agent. G. M. Kosolapoff

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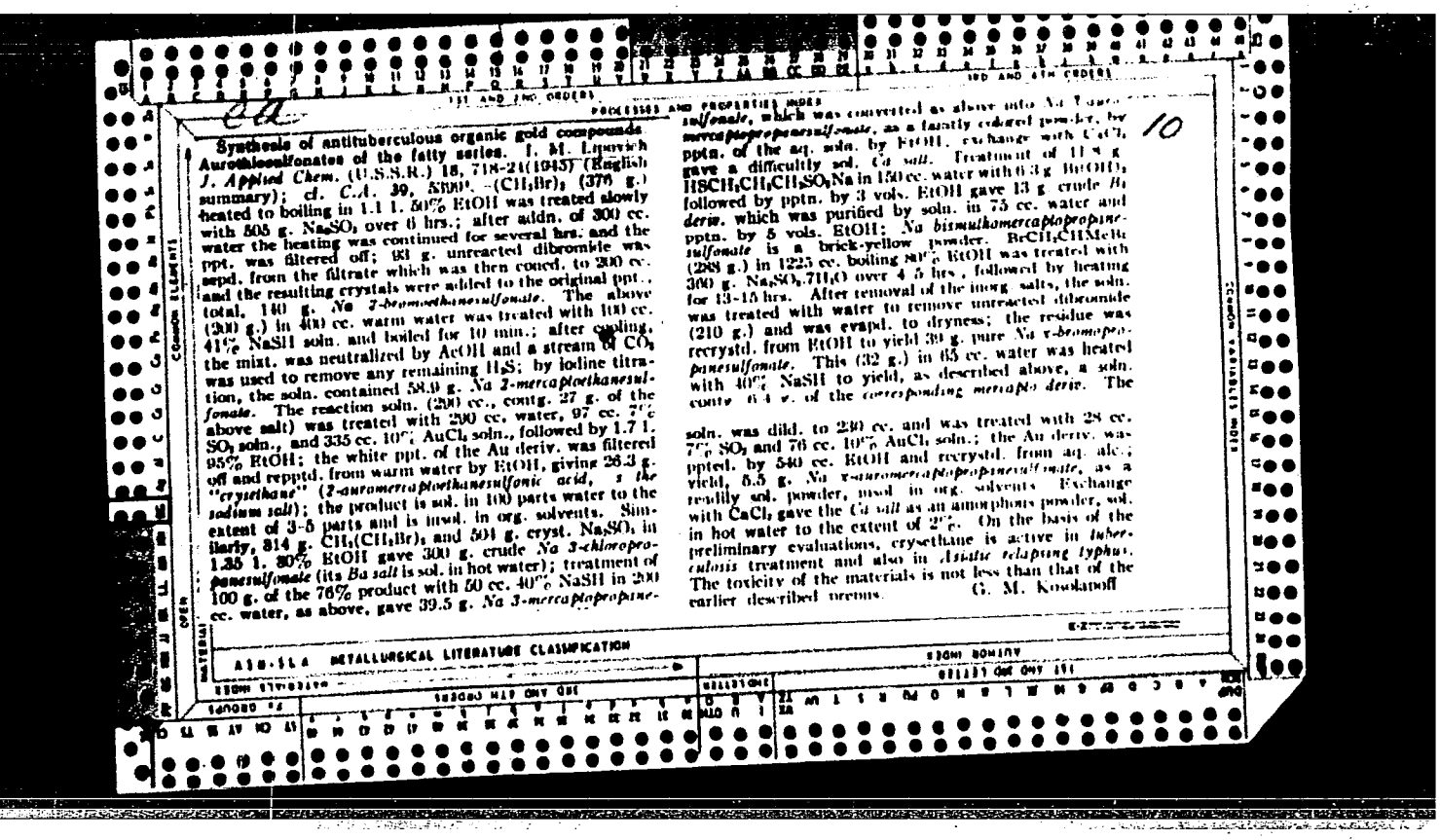

Synthesis of antituberculous organic gold compounds. Aurothiosulfonates of the fatty series. I. M. Lipovich *J. Applied Chem.* (U.S.S.R.) 18, 718-24(1945) (English summary); *cf. C.A.* 39, 5800. $-(CH_2Br)_2$ (376 g.) heated to boiling in 1.1 l. 50% EtOH was treated slowly with 505 g. Na_2SO_3 over 6 hrs.; after addn. of 300 cc. water the heating was continued for several hrs. and the ppt. was filtered off; 93 g. unreacted dibromide was sepd. from the filtrate which was then concd. to 300 cc. and the resulting crystals were added to the original ppt., total, 140 g. *Na 2-bromoethanesulfonate*. The above (300 g.) in 400 cc. warm water was treated with 100 cc. 41% NaSH soln. and boiled for 10 min.; after cooling, the mixt. was neutralized by AcOH and a stream of CO_2 was used to remove any remaining H_2S; by iodine titration, the soln. contained 58.0 g. *Na 2-mercaptoethanesulfonate*. The reaction soln. (200 cc., contg. 27 g. of the above salt) was treated with 200 cc. water, 97 cc. 7% SO_2 soln., and 335 cc. 10% $AuCl_3$ soln., followed by 1.7 l. 95% EtOH; the white ppt. of the Au deriv. was filtered off and reppted. from warm water by EtOH, giving 26.3 g. "*crysethane*" (*2-auromercaptoethanesulfonic acid, sodium salt*); the product is sol. in 100 parts water to the extent of 3-5 parts and is insol. in org. solvents. Similarly, 314 g. $CH_2(CH_2Br)_2$ and 501 g. cryst. Na_2SO_3 in 1.35 l. 80% EtOH gave 300 g. crude *Na 3-chloropropanesulfonate* (its *Ba salt* is sol. in hot water); treatment of 100 g. of the 76% product with 50 cc. 40% NaSH in 200 cc. water, as above, gave 39.5 g. *Na 3-mercaptopropanesulfonate*, which was converted as above into *Au 3-mercaptopropanesulfonate*, as a fatty colored powder, by pptn. of the aq. soln. by EtOH; exchange with $CaCl_2$ gave a difficultly sol. *Ca salt*. Treatment of 11 g. $HSCH_2CH_2CH_2SO_3Na$ in 150 cc. water with 6.3 g. $Ba(OH)_2$ followed by pptn. by 3 vols. EtOH gave 13 g. crude *Ba deriv.* which was purified by soln. in 75 cc. water and pptn. by 5 vols. EtOH; *Na bismuthomercaptopropanesulfonate* is a brick-yellow powder. $BrCH_2CHMeCH_2Br$ (288 g.) in 1225 cc. boiling 80% EtOH was treated with 300 g. $Na_2SO_3.7H_2O$ over 4.5 hrs., followed by heating for 13-15 hrs. After removal of the inorg. salts, the soln. was treated with water to remove unreacted dibromide (210 g.) and was evapd. to dryness; the residue was recrystd. from EtOH to yield 39 g. pure *Na 2-bromopropanesulfonate*. This (32 g.) in 65 cc. water was heated with 40% NaSH to yield, as described above, a soln. contg. 6.4 g. of the *corresponding mercapto deriv.* The soln. was dild. to 250 cc. and was treated with 28 cc. 7% SO_2 and 76 cc. 10% $AuCl_3$ soln.; the Au deriv. was ppted. by 540 cc. EtOH and recrystd. from aq. alc.; yield, 5.5 g. *Na 2-auromercaptopropanesulfonate*, as a readily sol. powder, insol. in org. solvents. Exchange with $CaCl_2$ gave the *Ca salt* as an amorphous powder, sol. in hot water to the extent of 2%. On the basis of the preliminary evaluations, crysethane is active in *tuberculosis* treatment and also in *Asiatic relapsing typhus*. The toxicity of the materials is not less than that of the earlier described preps. G. M. Kosolapoff

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LIPOVICH, I. M.

USSR/Chemistry - Ethyl Alcohol Feb 1947
Chemistry - Naphthalene

"The Synthesis of Alpha-[1-Hydroxynaphthyl-(4)]-beta-(Methylamino)-Ethanol and of Some Other Compounds of the Naphtalene Series," S. I. Sergievskaya, I. M. Lipovich, 8 pp

"Zhur Obshch Khim" Vol XVII, No 2

Synthesis of subject compound, which is shown to have sympathomimetic properties, but is slightly toxic.

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LIPOVICH, S. M.

S. I. Sergievskaia and S. M. Lipovich, On obtaining and proving the structures of β- (1-ethoxy-5,6,7,8-tetrahydronaphthoyl-4)propionic acid. P. 1339.

1-ethoxy-5,6,7,8-tetrahydronaphthyl-4-butyric acid, its derivatives and some other compounds of the tetrahydronaphthaline series are obtained.

The Ordzhonikidze All Union Scientific Research Chemico-Pharmaceutical Inst.
Moscow
June 7, 1947.

SO: Journal of General Chemistry (USSR) 18, (80) No. 7 (1948).

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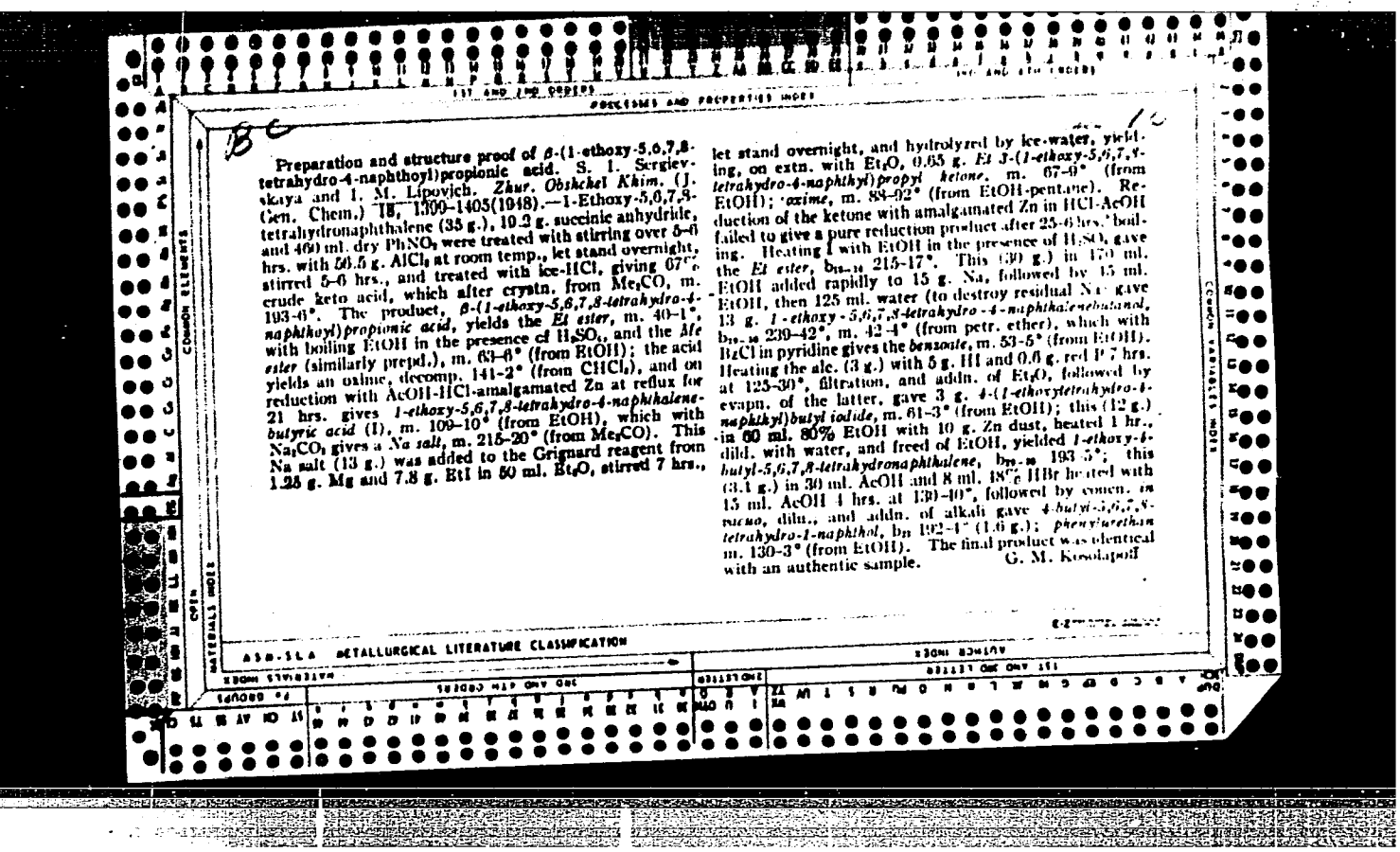

Preparation and structure proof of β-(1-ethoxy-5,6,7,8-tetrahydro-4-naphthoyl)propionic acid. S. I. Sergievskaya and I. M. Lipovich. *Zhur. Obshchel Khim.* (J. Gen. Chem.) 18, 1399–1405(1948).—1-Ethoxy-5,6,7,8-tetrahydronaphthalene (35 g.), 10.2 g. succinic anhydride, and 460 ml. dry $PhNO_2$ were treated with stirring over 5–6 hrs. with 56.5 g. $AlCl_3$ at room temp., let stand overnight, stirred 5–6 hrs., and treated with ice-HCl, giving 67% crude keto acid, which after crystn. from Me_2CO, m. 193–6°. The product, *β-(1-ethoxy-5,6,7,8-tetrahydro-4-naphthoyl)propionic acid*, yields the *Et ester*, m. 40–1°, with boiling EtOH in the presence of H_2SO_4, and the *Me ester* (similarly prepd.), m. 63–6° (from EtOH); the acid yields an oxime, decomp. 141–2° (from $CHCl_3$), and on reduction with AcOH-HCl-amalgamated Zn at reflux for 21 hrs. gives *1-ethoxy-5,6,7,8-tetrahydro-4-naphthalenebutyric acid* (I), m. 109–10° (from EtOH), which with Na_2CO_3 gives a *Na salt*, m. 215–20° (from Me_2CO). This Na salt (13 g.) was added to the Grignard reagent from 1.28 g. Mg and 7.8 g. EtI in 50 ml. Et_2O, stirred 7 hrs., let stand overnight, and hydrolyzed by ice-water, yielding, on extn. with Et_2O, 0.65 g. *Et β-(1-ethoxy-5,6,7,8-tetrahydro-4-naphthyl)propyl ketone*, m. 67–9° (from EtOH); *oxime*, m. 83–92° (from EtOH-pentane). Reduction of the ketone with amalgamated Zn in HCl-AcOH failed to give a pure reduction product after 25–6 hrs. boiling. Heating I with EtOH in the presence of H_2SO_4 gave the *Et ester*, $b_{0.05}$ 215–17°. This (30 g.) in 170 ml. EtOH added rapidly to 15 g. Na, followed by 15 ml. EtOH, then 125 ml. water (to destroy residual Na), gave 13 g. *1-ethoxy-5,6,7,8-tetrahydro-4-naphthaleneethanol*, $b_{0.05}$ 239–42°, m. 42–4° (from petr. ether), which with BzCl in pyridine gives the *benzoate*, m. 53–5° (from EtOH). Heating the alc. (3 g.) with 5 g. HI and 0.6 g. red P 7 hrs. at 125–30°, filtration, and addn. of Et_2O, followed by evapn. of the latter, gave 3 g. *β-(1-ethoxytetrahydro-4-naphthyl)butyl iodide*, m. 61–3° (from EtOH); this (12 g.) in 60 ml. 80% EtOH with 10 g. Zn dust, heated 1 hr., dild. with water, and freed of EtOH, yielded *1-ethoxy-4-butyl-5,6,7,8-tetrahydronaphthalene*, $b_{0.05}$ 193.5°; this (3.1 g.) in 30 ml. AcOH and 8 ml. 48% HBr heated with 15 ml. AcOH 4 hrs. at 130–40°, followed by concn. *in vacuo*, dilu., and addn. of alkali gave *4-butyl-5,6,7,8-tetrahydro-1-naphthol*, bp 192–4° (1.6 g.); *phenylurethan* m. 130–3° (from EtOH). The final product was identical with an authentic sample.

G. M. Kosolapoff

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Synthesis and transformations of 4-alkoxytetrahydro-1-naphthalenepropionic acids. S. I. Sergievskaya and I. M. Lipovich (S. Ordzhonikidze Chem.-Pharm. Inst., Moscow). *Zhur. Obshchei Khim.* (J. Gen. Chem.) **20**, 1171–9 (1950); cf. C.A. **43**, 2105g. 5,6,7,8-Tetrahydro-1-naphthol (I) (74 g.) in 125 ml. abs. EtOH contg. 31 g. KOH, refluxed 3 hrs. with 177 g. MeI in 125 ml. abs. EtOH, yielded 62 g. *Me ether*, b_{16} 120–31°. Condensation of this with succinic anhydride gave *β-(4-methoxy-5,6,7,8-tetrahydro-1-naphthoyl)propionic acid* (II), m. 177–9°; this (5 g.) heated 6 hrs. with 50 ml. abs. MeOH and 1 ml. concd. H_2SO_4 gave 4 g. of the *Me ester*, m. 80–2.5° (from EtOH-Me_2CO), hydrolyzed with alc. KOH to II, m. 177–9°. Addn. of 74 g. I to 31 g. KOH dissolved as much as possible in 125 ml. hot abs. EtOH, followed by addn. of 170 g. PrBr in 125 ml. abs. EtOH and refluxed 2–3 hrs., gave 70 g. *Pr ether*, b_{16} 141–2°; this (30 g.), 16 g. succinic anhydride, and 400 ml. dry $PhNO_2$, treated slowly with 18 g. $AlCl_3$ and let stand overnight, followed by stirring 6 hrs., gave on hydrolysis with ice water 32 g. crude *4-propoxy homolog* of II, isolated via the *Na salt* and purified by heating the crude acid with MeOH in the presence of H_2SO_4 through the *Me ester*, m. 47–8° (from EtOH), $b_{0.5}$ 216–22°, which when heated 6 hrs. with EtOH-KOH gave the *free acid*, m. 134–7° (from EtOH). Similar reactions yielded the *Bu ether* of I, b_{17} 168–70°, which condensed as above with succinic anhydride gave the crude *4-butoxy homolog* of II, purified via the *Me ester*, $b_{0.6}$ 228–32°, m. 35–6° (from PrOH), which on boiling with alc. KOH yields the *free acid*, m. 114–17° (from EtOH), the latter (5 g.) heated 21 hrs. with 33 ml. 1:1 HCl, 33 ml. AcOH, 33 ml. MePh, and 25 g. Zn-Hg (3 addns. of 1:1 HCl) gave 2.7 g. *4-butoxy-5,6,7,8-tetrahydro-1-naphthalenebutyric acid*, m. 90–2° (from aq. MeOH). A similar reaction sequence yielded the *heptyl ether* of I, $b_{0.15}$ 178–80°, and the *Me ester*, $b_{0.6}$ 215–20°, of the *4-heptyloxy homolog* of II, m. 91–2° (from EtOH); the same acid was obtained by adding 2.3 g. KOH in 30 ml. abs. EtOH to 10 g. Et *β*-(4-hydroxy-5,6,7,8-tetrahydro-1-naphthoyl)propionate, heating 2 hrs. with 15 g. $C_7H_{15}Br$ in EtOH (yield, 10 g. *Et ester*, $b_{0.6}$ 215–18°), and sapong. the Et ester. The latter procedure with $C_6H_{13}I$ yielded the *Et ester*, $b_{0.7}$ 235–40°, of the *4-hexyloxy homolog* of II, m. 92–4° (from EtOH). Heating 6 g. II 4 hrs. to 120–30° with 60 ml. AcOH and 20 ml. 48% HBr, followed by evapn. *in vacuo* and extn. with alkali, gave 1 g. *4-HO acid*, m. 192–4.5° (from C_6H_6-EtOH), also obtained (1.5 g.) by heating 27 g. II in 1100 ml. C_6H_6 5 hrs. with 55 g. $AlCl_3$ (added slowly); the EtO and BuO acids give the same result. Refluxing the 4-HO acid with EtOH in the presence of H_2SO_4 gave the *Et ester*, m. 122–4° (from MeOH). Reduction of the free acid by Clemmensen method gave 65% *4-hydroxy-5,6,7,8-tetrahydro-1-naphthalenebutyric acid*, m. 127–30° [from (CH_2Cl)].

G. M. Kosolapoff

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The synthesis and transformation of 4-alkoxytetrahydro-1-naphthalenepropionic acids. S. I. Sergievskaya and I. M. Lipovich. *J. Gen. Chem. U.S.S.R.* 20, 1215–22(1950) (Engl. translation).—See *C.A.* 45, 1560a. R. M. S.

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Reduction of β-(alkoxyaroyl)propionic acids and preparation of γ-(alkoxyaryl)butyrolactones. L. M. Lipovich and S. I. Sergievskaya (S. Ordzhonikidze All-Union Chem.-Pharm. Inst.). *Zhur. Obshchel Khim.* (J. Gen. Chem.) 21, 123-9(1951).—Addn. of 30 g. 20% Na-Hg in 9–10 hrs. to 3 g. β-(1-ethoxy-5,6,7,8-tetrahydro-4-naphthoyl)propionic acid, I, 4-ROC$_6$H$_3$COCH$_2$CH$_2$CO$_2$H (I, R = Et), in 50 ml. 10% Na_2CO_3 with periodic addn. of 5–10 ml. H_2O gave after the usual treatment 32% γ-(*1-ethoxy-5,6,7,8-tetrahydro-4-naphthyl*)-γ-*butyrolactone*, ROC$_6$H$_3$CH.CH$_2$.CH$_2$.CO.O (II, R = Et), m. 93–4° (from EtOH). Addn. of 30 g. Raney alloy to 10 g. I in 300 ml. 10% KOH at 80–90°, stirring 1 hr., filtration, and acidification gave a ppt. forming on heating an oil, which, extd. with Et_2O and washed with 3% $NaHCO_3$ gave 70% of the same II, m. 95–7°. Na-Hg (20%) with IA (I, R = Me) gave 36% of the *lactone* (IIA) (II, R = Me), m. 121–3° (from EtOH); Raney alloy gave 64%, m. 122–4°. The *PrO lactone* (IIB) (II, R = Pr), m. 81–3°, forms in 40% yield when 20% Na-Hg is used, while Raney alloy gave 42% of the *BuO lactone* (IIC) (II, R = Bu), m. 84–7°, formed in 30% yield (m. 83–7°) when 20% Na-Hg was used. The *1-hexyloxy lactone*, m. 81–2.5°, forms in somewhat poorer yield with Na-Hg, than with Raney alloy, which gives a product, m. 81–3°. The *1-heptyloxy lactone*, m. 71–2°, forms in unstated yield by the 20% Na-Hg method. Reduction of IB (I, R = H) with 20% Na-Hg gives 28% *HO lactone*, (IID) (II, R = H), m. 152–3.5°. Reduction of (2,6-EtOC$_{10}$H$_6$COCH$_2$CH$_2$CO$_2$H with Raney alloy yields γ-(*2-ethoxy-6-naphthyl*)-γ-*butyrolactone*, m. 125–6°; the 2-*PrO analog* (5 g.) by the same method yields 1.2 g. corresponding *lactone*, m. 128–9°. Reduction of 10 g. *p*-MeOC$_6$H$_4$CO-CH$_2$CH$_2$CO$_2$H by Raney alloy gave 5 g. γ-(*p-methoxyphenyl*)-γ-*butyrolactone*, m. 52–4° (from petr. ether). G. M. K.

Derivatives of chloromycetin. J. Büchi, S. Contini, and R. Lieberherr (Politec. Federale, Zurich, Switz.). *Helv. Chim. Acta* **34**, 274–8(1951)(in Italian).—PhCH(OH)-CH(NH$_2$)CO$_2$Et (I) (cf. C.A. 44, 7288a), with substituted aroyl halides yielded the following *Et α-aroylamino-β-hydroxy-β-phenylpropionates*, PhCH(OH)CH(NHCOAr)-CO$_2$Et; (NHCOAr given): 71% *p-nitrobenzamido*, (II), m. 119°; 54% *p-tolylsulfonamido*, m. 195°; 84% *3,5-dinitrobenzamido*, m. 140°; 55% *p-chlorobenzamido*, m. 185–7°; 75% *p-methoxybenzamido*, m. 131°; 67% *2-chlorocinchoninoylamino*; 98% *p-aminobenzamido* (by reduction of II with Raney Ni in EtOH), m. 195°. Reduction of I with LiAlH$_4$,

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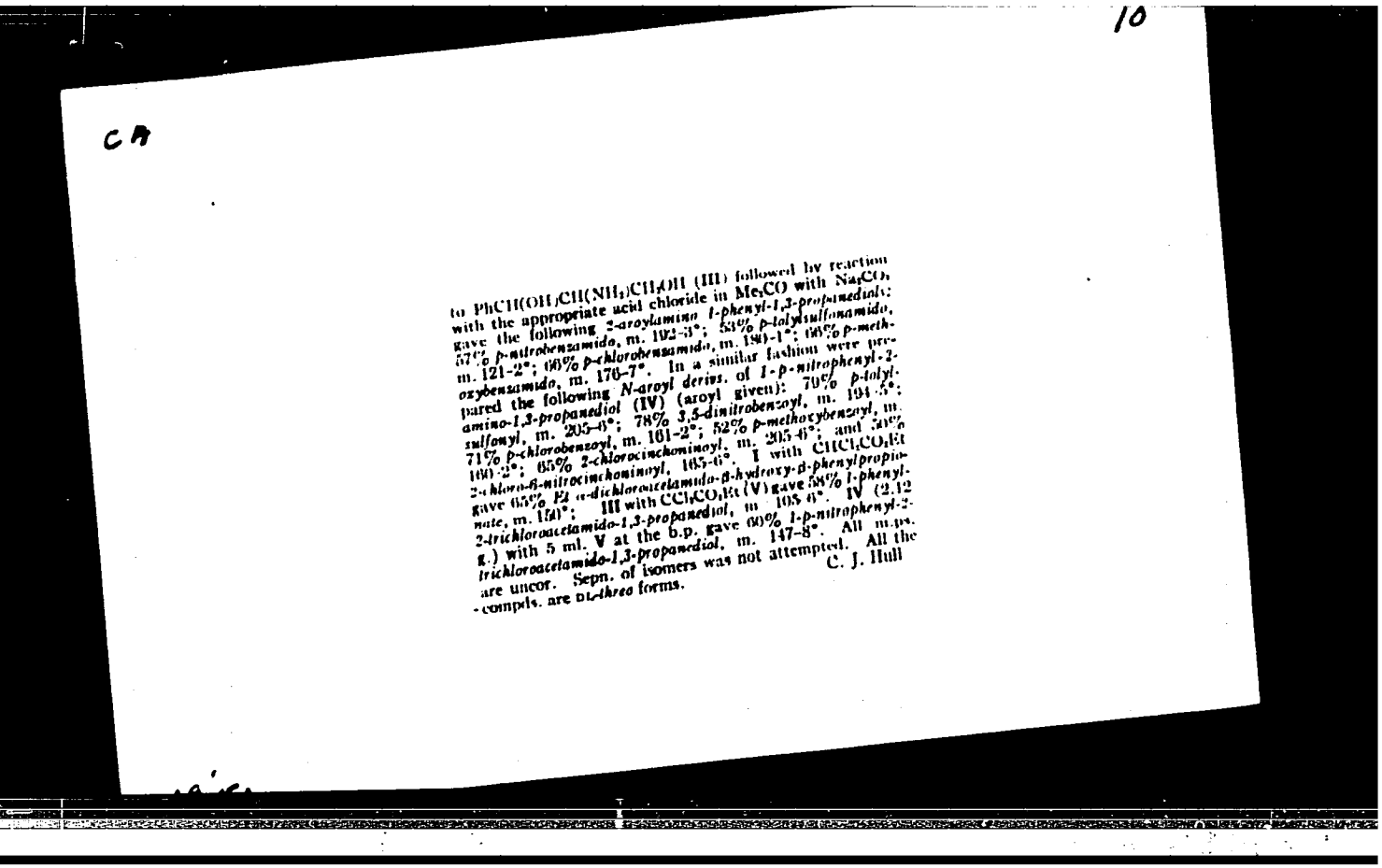

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to PhCH(OH)CH(NH$_2$)CH$_2$OH (III) followed by reaction with the appropriate acid chloride in Me$_2$CO with Na$_2$CO$_3$ gave the following *2-aroylamino-1-phenyl-1,3-propanediols*: 67% *p-nitrobenzamido*, m. 192–3°; 53% *p-tolylsulfonamido*, m. 121–2°; 66% *p-chlorobenzamido*, m. 180–1°; 66% *p-methoxybenzamido*, m. 176–7°. In a similar fashion were prepared the following *N-aroyl derivs.* of *1-p-nitrophenyl-2-amino-1,3-propanediol* (IV) (aroyl given): 70% *p-tolylsulfonyl*, m. 205–6°; 78% *3,5-dinitrobenzoyl*, m. 194–5°; 71% *p-chlorobenzoyl*, m. 161–2°; 52% *p-methoxybenzoyl*, m. 160–2°; 65% *2-chlorocinchoninoyl*, m. 205–6°; and 58% *2-chloro-6-nitrocinchoninoyl*, 165–6°. I with CHCl$_2$CO$_2$Et gave 65% *DL-α-dichloroacetamido-β-hydroxy-β-phenylpropionate*, m. 151°; III with CCl$_3$CO$_2$Et (V) gave 58% *1-phenyl-2-trichloroacetamido-1,3-propanediol*, m. 105–6°. IV (2.12 g.) with 5 ml. V at the b.p. gave 60% *1-p-nitrophenyl-2-trichloroacetamido-1,3-propanediol*, m. 147–8°. All m.ps. are uncor. Sepn. of isomers was not attempted. All the -compds. are DL-*threo* forms.

C. J. Hull

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LIPOVICH, I. M.

USSR/Chemistry - Pharmaceuticals Sep 52

"Dehydrogenation and Oxidation of 2-Ethoxy-(5, 6,7,8-tetrahydronaphthoyl-3)-propionic Acid," S. I. Serflyevskaya, I. M. Lipovich, All-Union Sci Res Inst imeni S. Ordzhonikidze, Moscow

"Zhur Obshch Khim" Vol 22, No 9, pp 1650-1655

The constitution of 2-ethoxy-(5,6,7,8-tetrahydranaphthoyl-3)-propionic acid was detd more precisely by oxidizing this compd into 2-ethoxy-3-tetrahydranaphthoic acid and subsequent conversion of the latter into compds of known

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structure. The dehydrogenation of 2-ethoxy-(5, 6,7,8)-tetrahydronaphthyl-3-butyric acid was carried out in the presence of palladium deposited on carbon.

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LIPOVICH, I.M.

Chemical Abst.
Vol. 48
Apr. 10, 1954
Organic Chemistry

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N-Alkylurethans and some other derivatives of naphthols and tetrahydro-α-naphthols. I. M. Lipovich (S. Ordzhonikidze All-Union Chem.-Pharm. [illegible]) Zhur Obshchei Khim. 23, 811–16(1953).—The naphthols or tetrahydronaphthols (1 mole) in C_6H_6 and 1 mole $PhNMe_2$ were added to 1.2 moles $COCl_2$ in 15% soln. in C_6H_6, the mixt. was stirred 1 hr. at room temp., let stand overnight, filtered, the filtrate washed, dried, and distd. In this way were obtained the following *chloroformates*, $ClCO_2R$ (R shown): *1-naphthyl*, b_{1-2} 139–40°; *2-naphthyl*, b_{3-4} 146–7°, m. 60–2° (from hexane); 5,6,7,8-tetrahydro-2-naphthyl, b_{1-2} 133–4°; 1-isomer, b_{10} 143°. These were added in C_6H_6 to aq. soln. of the desired amine with cooling, the mixt. stirred 2–2.5 hrs., and the washed and dried org. layer distd. yielding the various urethans, $1\text{-}C_{10}H_7O_2CNR_2$, listed below ($NR_2$ shown): *NMe_2*, b_{10-15} 191–2°, m. 52–5° (from ligroine); *NEt_2*, b_{10-11} 201–2°, m. 59–61° (from hexane); *NPr_2*, b_7 201–2°; *NBu_2*, b_{10} 235–7°; *$NHBu$*, prepd. in C_6H_6 soln., m. 69–72° (from EtOH); *$N(CH_2CH_2ClMe)_2$*, b_5 226–7° (70%); *NAm_2*, b_4 224–5° (60%); *$N(CH_2CH_2Cl)_2$*, 80%, b_{3-4} 222–3°, m. 81–3° (from EtOH), by treatment of 10 g. $(ClCH_2CH_2)_2NH.HCl$ with 2.3 g. NaOH in H_2O at 0°, followed by addn. of RO_2CCl in $CHCl_3$ at 0–5°. *$2\text{-}C_{10}H_7O_2CNR_2$*: *$NMe_2$*, m. 96–8° (from EtOH); *NEt_2*, b_{11} 203–5°, m. 56–8° (from hexane); *$NHBu$*, m. 121–3° (from EtOH). *$N(CH_2CH_2Cl)_2$*, 60%, m. 65–8° (from EtOH), b_3 233–7°. *ar-1-$C_{10}H_{11}O_2CNEt_2$*, 70%, b_{11} 191–2°; *ar-1-$C_{10}H_{11}O_2CNBu_2$*, b_4 215–17°. *ar-2-$C_{10}H_{11}O_2CNEt_2$*, b_{4-5} 102–4°, m. 62–4° (from EtOH). *ar-1-$C_{10}H_{11}O_2CNHC_6H_4CO_2H$-o*, prepd. in C_6H_6, decomp. 167–9° (from EtOH). *ar-1-$C_{10}H_{11}O_2CNHPh$*, from 5,6,7,8-tetrahydro-1-naphthol (I) and PhNCO in 7 days at room temp., in low yield, m. 169–71° (from Me_2CO). *ar-2-$C_{10}H_{11}O_2CNHPh$*, prepd. as above in 70% yield, m. 151–2° (from Me_2CO). KOH (9.3 g.) in 40 ml. abs. EtOH and 22.2 g. I were heated 2.5 hrs. with 38 g. $PhCH_2Cl$ in EtOH; the filtrate after the usual treatment gave *ar-1-$C_{10}H_{11}OCH_2Ph$*, b_5 195–6°, which turns red on standing. *ar-2-$C_{10}H_{11}OCH_2Ph$*, prepd. similarly, b_{3-4} 169–71°. G. M. Kosolapoff

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N-Alkylurethans and some other derivatives of naphthols and tetrahydro-α-naphthols. I. M. Lipovich. *J. Gen. Chem. U.S.S.R.* 23, 849-54(1953)(Engl. translation).—See *C.A.* 48, 3940e. H. J. H.

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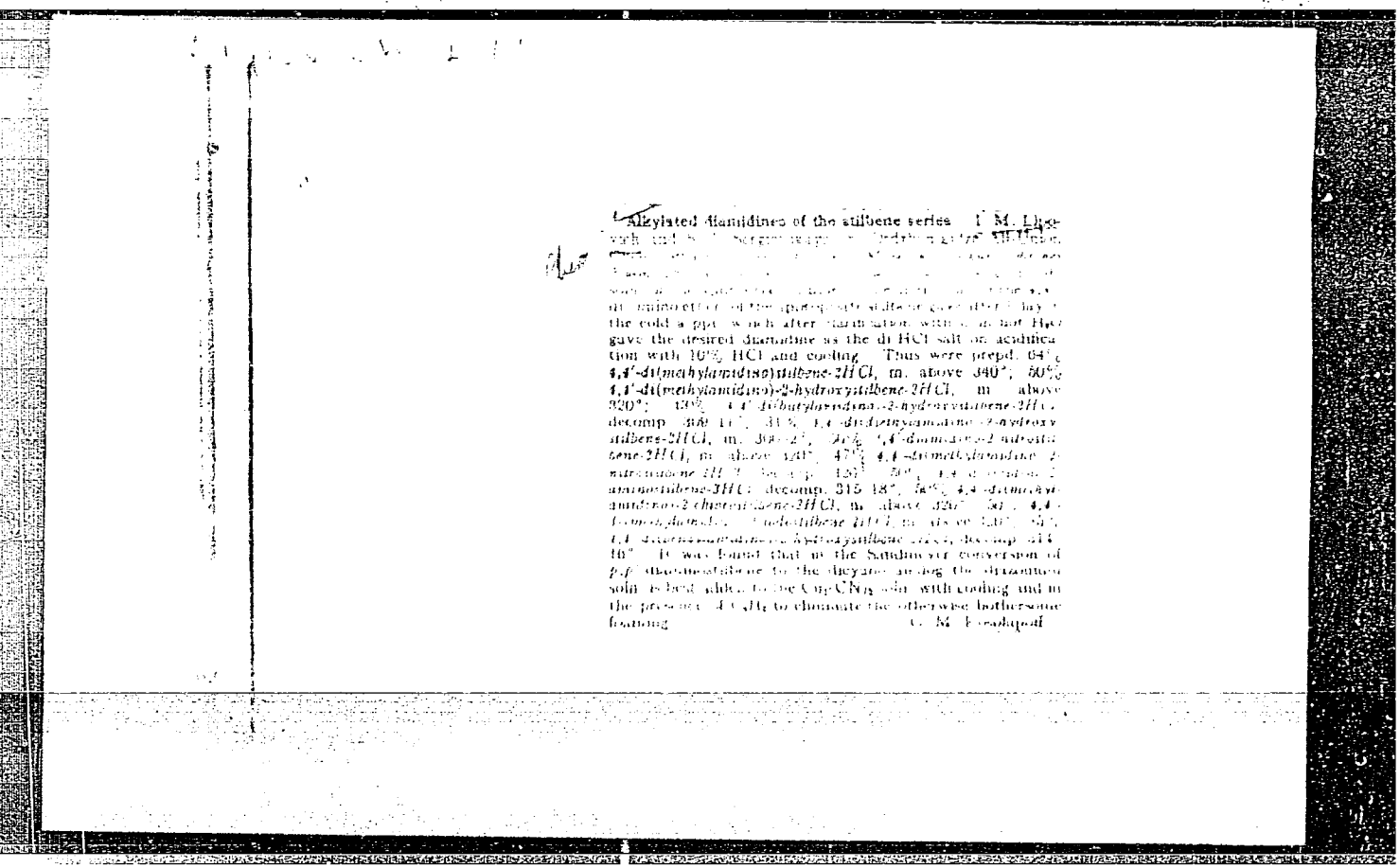

Alkylated diamidines of the stilbene series. I. M. Lhoest[illegible]. [illegible] the cold a ppt. which after [illegible] with [illegible] HCl gave the desired diamidine as the di HCl salt on acidification with 10% HCl and cooling. Thus were prepd. 64% ***4,4'-di(methylamidino)stilbene-2HCl***, m. above 340°; 60% ***4,4'-di(methylamidino)-2-hydroxystilbene-2HCl***, m. above 320°; 130% *4,4'-dibutylamidino-2-hydroxystilbene-2HCl*, decomp. 308° [illegible]; 31% *4,4'-dimethylamidino-2-hydroxystilbene-2HCl*, m. 308–12°; 20% *4,4'-diamidino-2-nitrostilbene-2HCl*, m. above 340°; 47% *4,4'-dimethylamidino-2-nitrostilbene-2HCl* [illegible]; 50% *4,4'-diamidino-2-aminostilbene-3HCl*, decomp. 315–18°; 8% *4,4'-dimethylamidino-2-chlorostilbene-2HCl*, m. above 320°; 6% *4,4'-bis(methylamidino)-2-iodostilbene-2HCl*, m. above 340°; 5% *4,4'-bis(methylamidino)-2-hydroxystilbene-2HCl*, decomp. 314–16°. It was found that in the Sandmeyer conversion of *p,p'*-diaminostilbene to the dicyano analog the diazotized soln. is best added to the $CuCN_2$ soln. with cooling and in the presence of CH_2 to eliminate the otherwise bothersome foaming. C. M. Lhoest[illegible]

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LIPOVICH, I.M.

Synthesis of butyloxyanisole. Med.prom. 13 no.1:33-35 Ja '59.
(MIRA 12:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(ANISOLE)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

CHEKULAYEVA, I.A.; SHOSTAKOVSKIY, M.F.; GLADYSHEVSKAYA, V.A.; LIPOVICH, I.V.

Synthesis and transformations of vinyl ethanolamine ethers. Part 13: Copolymerization of some vinyl ethanolamine ethers with methacrylate. Vysokom.soed. 3 no.6:901-907 Je '61. (MIRA 14:6)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo.
(Ethanol) (Methacrylic acid) (Polymerization)

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S/062/63/000/003/010/018
B101/B186

AUTHORS: Shostakovskiy, M. F., Chekulayeva, I. A., and Lipovich, I.V.

TITLE: Synthesis and transformation of the amino ethanol vinyl ether. Communication 14. Reaction of the 2-amino ethanol vinyl ether with vinyl acetate

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 3, 1963, 532 - 535

TEXT: It was found that the 2-amino ethanol vinyl ether reacts with vinyl acetate in different ways according to the reaction conditions. In the absence of an initiator and with low temperatures the reaction proceeds mainly according to: $CH_2{=}CHO(CH_2)_2NH_2 + CH_2{=}CHOCOCH_3 \rightarrow CH_2{=}CHO(CH_2)_2NHCOCH_3 + CH_3CHO$. The N-acetyl-β-amino ethanol vinyl ether, b.p. 104°C/3 mm Hg, $n_D^{20} = 1.4671$, $d_4^{20} = 1.027$, is formed. If heated, however, the 2-amino ethanol vinyl ether reacts with the acetaldehyde formed: $CH_2{=}CHO(CH_2)_2NH_2 + CH_3CHO \rightarrow CH_2{=}CHO(CH_2)_2N{=}CH{-}CH_3 + H_2O$ with

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Synthesis and transformation of ...

resinification taking place. Still more complicated, and also accompanied by resinification, is the reaction in the presence of azoisobutyric dinitrile, as copolymerization both of the initial monomers and of the reaction products takes place. The polymers are soluble in water as well as in alcohol. The acylation investigated can also be applied to the diethanol amine divinyl ether. N-acetyl diethanol amine divinyl ether, b.p. 120 - 121°C/4 mm Hg, n_D^{20} = 1.4778, d_4^{20} = 1.034 is formed. The synthesized N-acetyl derivatives of the amino ethanol vinyl ether are new monomers, containing both a vinyl and an amino group as functional group. There are 2 tables.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: June 6, 1962

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

S/062/63/000/003/011/018
B101/B186

AUTHORS: Chekulayeva, I. A., Lipovich, I. V., and Shostakovskiy, M.F.

TITLE: Synthesis and transformation of the amino ethanol vinyl ethers. Communication 15. Polymerization of amino ethanol vinyl ethers

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 3, 1963, 535 - 540

TEXT: As a result of the polymerization of amino ethanol vinyl ethers in the presence of azoisobutyric dinitrile at 60°C in ampuls are given: Formula of the vinyl ether, its b.p. (°C/mm Hg), n_D^{20}, the yield of polymer, the molecular weight of it and a short characterization of the polymer. The data given are: $CH_2=CHOCH_2CH_2NH_2$, 115 - 116, 1.4390, 14 - 15, -, viscous, yellow, soluble in water and alcohols; $CH_2=CHOCH(CH_3)CH_2NH_2$, 127 - 128, 1.4380, 10 - 11, -, in like manner; $CH_2=CHOCH_2CH_2N(C_2H_5)_2$, 155 - 157, 1.4328, 7 - 8, 435 - 451, viscous, yellow, soluble in ether, benzene, acetone, methanol; $CH_2=CHOCH_2CH_2N(CH_3)_2$, 158 - 159/3, 1.5980,

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Synthesis and transformation of ...

10 - 11, 475, viscous, yellow, soluble in acetone and benzene; $(CH_2{=}CHOCH_2CH_2)_2NH$, 80 - 81/8, 1.4576, 19 - 21, 1490 - 1550, viscous, dark yellow, soluble in acetone, benzene and alcohols; $(CH_2{=}CHOCH_2CH_2)_2NC_4H_9$, 90 - 91/4, 1.4536, 18 - 40,-, likewise; $(CH_2{=}CHOCH_2CH_2)_2NCH_2COOCH_3$, 126 - 127/5, 1.4640, 20 - 21, -, likewise; $(CH_2{=}CHOCH_2CH_2)_2NCH_2CH_2COOCH_3$, 124 - 125/5, 1.4652, 20 - 22,-, likewise; $CH_2{=}CHOCH_2CH_2NHCH_2CH_2OH$, 95 - 96/4, 1.4687, 5-7,-, viscous, yellow, soluble in alcohols; $CH_2{=}CHOCH_2CH_2N(CH_2CH_2OH)_2$, 141-142/3.5, 1.4805, 6-7, -, viscous, yellow, soluble in water and abohols; $(CH_2{=}CHOCH_2CH_2)_2NCH_2OH$, 125 - 126/4.5, 1.4725, 19 - 20,-, solid, yellow, insoluble in usual solvents, non-meltable; $(CH_2{=}CHOCH_2CH_2)_3N$, 120 - 122/5, 1.4678, 38 - 40, -, likewise; $CH_2{=}CHOCH_2CH_2NHCOCH_3$, 104 - 105/3, 1.4671, 68 - 70,-, colourless, rubberlike, soluble in water and alcohols; $(CH_2{=}CHOCH_2CH_2)_2NCOCH_3$, 120 - 121/4, non-meltable. The N-butyl diethanol amin divinyl ether was for the first time synthesized from N-butyl di-

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Synthesis and transformation of ...

ethanol amin and acetylene at 14 atm, 160°C; the amino-isopropanol vinyl ether from amino ispropanol and acetylene at 15 atm, 140 - 150°C; the methyl-N-divinyl oxyethyl-α-amino-acetate from diethanol amin divinyl ether and methyl chloroacetate and the methyl-N-divinyl oxyethyl-β- aminoproprionate from diethanol amino divinyl ether and methyl acrylate. There is 1 table.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: June 6, 1962

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DRBOGLAV, Ye.S.; MAYOROV, V.S.; LIPOVICH, L.M.

Desulfurization of fruit and berry juices by means of ultrasonic waves. Trudy TSentr.nauch.-issl.inst.piv., bezalk.i vin.prom. no.11:59-60 '63. (MIRA 17:9)

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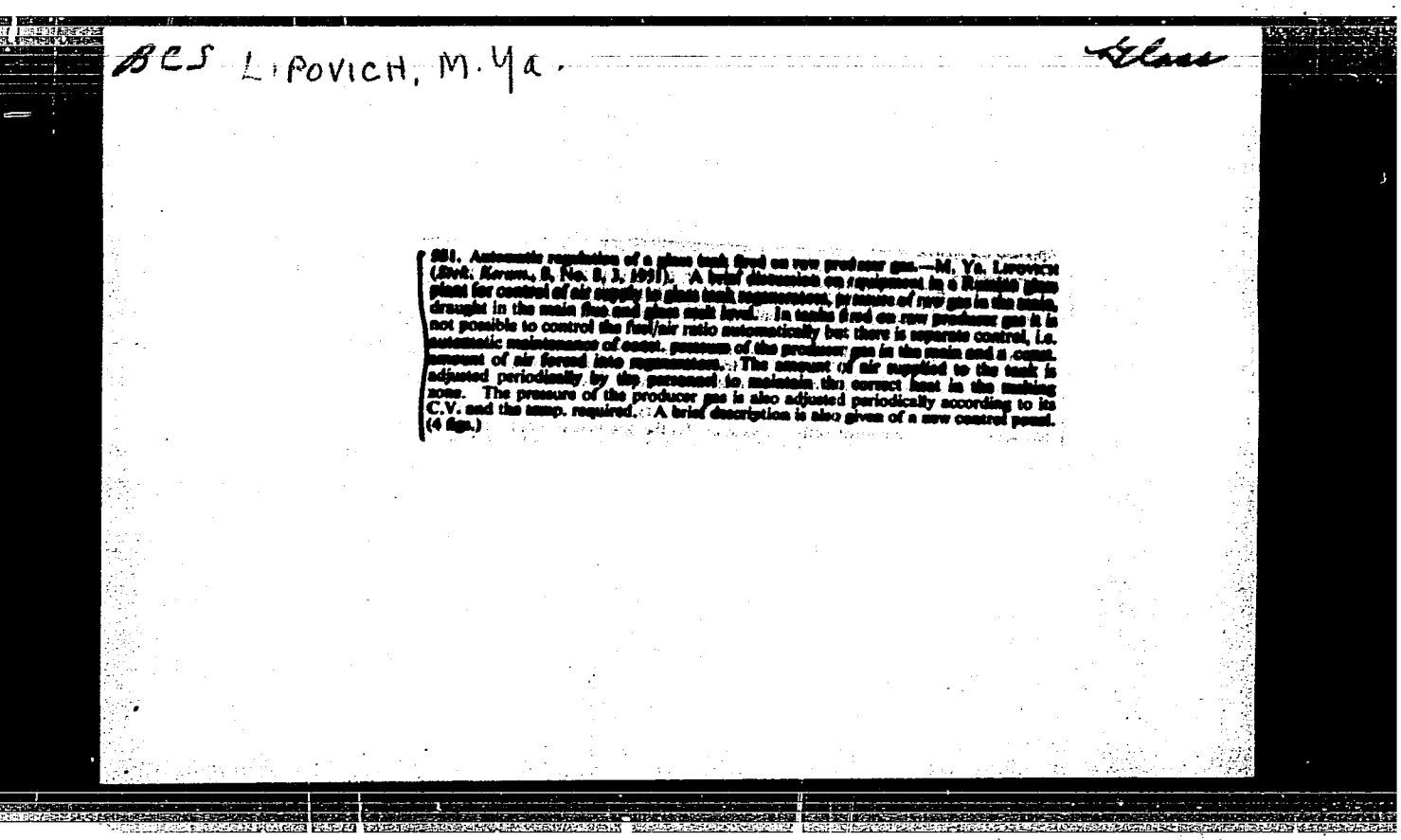

BES LIPOVICH, M.Ya.

Glass

551. Automatic regulation of a glass tank fired on raw producer gas.—M. Ya. Lipovich (*Steklo. Keram.*, 8, No. 3, 1951). A brief discussion on equipment in a Russian glass plant for control of air supply to glass tank regenerators, by means of raw gas in the mains, draught in the main flues and glass melt level. In tanks fired on raw producer gas it is not possible to control the fuel/air ratio automatically but there is separate control, i.e. automatic maintenance of const. pressure of the producer gas in the mains and a const. amount of air forced into regenerators. The amount of air supplied to the tank is adjusted periodically by the personnel to maintain the correct heat in the melting zone. The pressure of the producer gas is also adjusted periodically according to its C.V. and the temp. required. A brief description is also given of a new control panel. (4 figs.)

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LIPOVICH. N.S.

25981 Lipovich. N.S. Kombinirovannoye Lecheniye Zabolevaniy Perediyego Otdela Glaza Al'butsidom I Ekoroftal'molom. Sbornik Nauch. Rabot Lechеb. Uchrezhdeniy Mosk. Voyen. Okr. Gor'kiy, 1948, S. 339-41

SO: Letopis' Zhurnal Statey, No. 30, Moscow 1948

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVICH, N. S.

25980 Lipovich, N.S. Valik-Zakrutka Pri Operatsii Ptoza Vek. Sbornik Nauch. Rabot Lecheb. Uchrezhdeniy Mosk. Voyen. Okr. Gor'kiy, 1948 S. 342-43.

SO: Letopis' Zhurnal Statey, No. 30, Moscow 1948

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

VERESHCHAGIN, L.I.; KORSHUNOV, S.P.; SKOELJKOVA, V.I.; LIPOVICH, T.V.

Furylalkynes. Part 5: Synthesis of furyl-substituted pyrazoles and isoxazoles on the basis of furylacetylene derivatives. Zhur. org. khim. 1 no.6:1089-1094 Je '65. (MIRA 18:7)

1. Institut nefte- i uglekhimicheskogo sinteza pri Irkutskom gosudarstvennom universitete.

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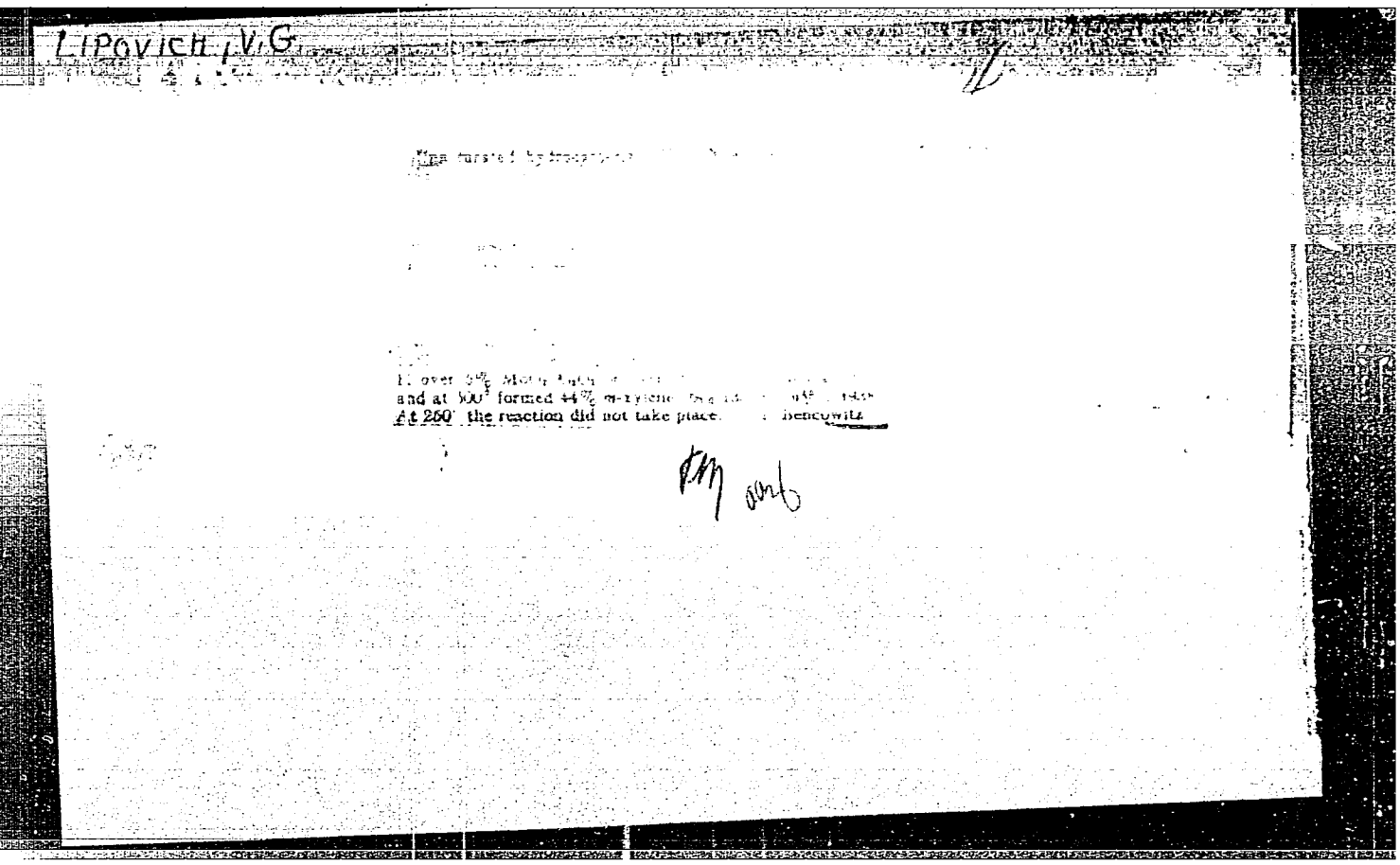

LIPOVICH, V.G.

[illegible] and at 500° formed 44% [illegible]
At 260° the reaction did not take place. [illegible] Benedikt

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Lipovich, V.G.

KOTLYAREVSKIY, I.L.; ZAMINA, A.S.; LIPOVICH, V.G.

Aromatization of divinylacetylene. Izv.vost.fil.AN SSSR no.4/5:90-90 '57. (MLRA 10:9)

1. Vostochno-Sibirskiy filial Akademii nauk SSSR.
(Acetylene) (Aromatic compounds)

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KALABINA, A.V.; LIPOVICH, V.G.; VERESHCHAGIN, L.I.

Synthesis and transformations of vinyl aryl ethers. Report No.8: Syntheis of vinyl ethers of α and β -naphthols. Izv. Fiz.-khim. nauch.-issl. inst. Irk. un. 4 no.2:135-145 '59. (MIRA 16:8)

(Ethers) (Naphthol)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

KALABINA, A.V.; CHEKHLOVA, N.V.; VERESHCHAGIN, L.I.; LIPOVICH, V.G.

Synthesis and transformations of vinyl aryl ethers. Report No.12: Some chemical transformations of vinyl ethers of α- and β-naphthols. Izv. Fiz.-khim. nauch.-issl. inst. Irk. un. 4 no.2:191-202 '59. (MIRA 16:8)

(Ethers) (Naphthol)

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KALECHITS, I.V.; LIPOVICH, V.G.; VYKHOVANETS, V.V.

Studying the mechanism of the destructive hydrogenation of benzene with the aid of tagged atoms. Dokl.AN SSSR 138 no.2:381-383 My '61. (MIRA 14:5)

1. Vostochno-Sibirskiy filial Akademii nauk SSSR. Predstavleno akademikom A.A.Balandinym.
(Radioactive tracers) (Hydrogenation) (Benzene)

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E030/E485

11.0182

AUTHORS: Kalechits, I.V., Lipovich, V.G., Vykhovanets, V.V., Petrova, V.N.

TITLE: Isotopic investigation on the mechanism of benzol, cyclohexane and methylcyclopentane conversions in destructive hydrogenation

PERIODICAL: Kinetika i kataliz, v.2, no.5, 1961, 748-753

TEXT: Destructive hydrogenation has been studied at 420°C and 350 atm on a WS_2 industrial high-temperature catalyst in order to elucidate the sequence and relationship between isomerization and fragmentation, the literature data on this subject being contradictory. The feedstocks chosen were either mixtures of benzol and cyclohexane or of these plus methylcyclopentane or of cyclohexane and methylcyclopentane; one of these compounds was marked by C^{14} in each experiment. The catalyst of 2 to 3 mm pellets had been heated with the feed in a 2-litre autoclave; the time of reaction occupied about 30 to 40 minutes of the whole heating time, which took about 150 to 160 min from 350°C. Preliminary experiments with unmarked material gave the correct conditions for

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Isotopic investigation on ...

the conversions required. After cooling, the hydrogenate was separated from the benzol by chromatography and then distilled on a 60-plate column. Both the yields and activities of catalysate were measured. In all experiments, there was a good linear relation between the activity of the fragmentation products and the methylcyclopentane yield; this indicates that hydrogenation proceeds faster than either isomerization or fragmentation. To show which of the two latter processes were more important, six experiments were carried out with no methylcyclopentane in the feedstock. It was found that the activity of the total end-products approximated to that of the methylcyclopentane yield. In three experiments where marked cyclohexane was used in the feed, there was less correlation with the cyclohexane ratio. The activity therefore arises, either from methylcyclopentane or from end-products with a yield proportional to that of methylcyclopentane, and the distribution of activity versus yields favours the former. It is suggested that since methylcyclopentane is formed directly from cyclohexane and from benzol without desorption, that the catalyst does not contain two types of active centre (metallic and

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acidic) but only one, and the molecules move over several sites. The reactions of hydrogenation and the reverse reactions are therefore best described, not in terms of rupture of the benzol nucleus but in terms of a complex formation, involving proton-transfer from the π-complex of the ring. There are 1 figure, 2 tables and 10 references: 8 Soviet-bloc and 2 non-Soviet-bloc. The references to English language publications read as follows: Ref.9: F.G.Ciapetta, R.M.Dobres, R.W.Baker. Catalysis, ed. P.H.Emmett, v.6, 1958, 495; Ref.10: F.E.Condon, Catalysis, ed. P.H.Emmett, v.6, 1958, 118.

ASSOCIATION: Institut nefte- i uglekhimicheskogo sinteza SO AN SSSR Irkutsk (Institute of Petrochemical and Organic Synthesis SO AS USSR, Irkutsk)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

KALECHITS, I.V.; LIPOVICH, V.G.; VYKHOVANETS, V.V.

Mechanism of the destructive hydrogenation of benzene studied by means of tagged atoms. Trudy Vost.-Sib.fil.AN SSSR no.38:5-14 '61. (MIRA 15:4)

(Benzene) (Hydrogenation) (Carbon—Isotopes)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

POPOVA, N.I.; LIPOVICH, V.G.; KABAKOVA, B.V.

Mechanism of toluene oxidation on copper catalysts with added heavy metal oxides studied by tracer technique. Dokl. AN SSSR 159 no.3:615-618 N '64 (MIRA 18:1)

1. Institut nefte- i uglekhimicheskogo sinteza pri Irkutskom gosudarstvennom universitete, Angarsk. Predstavleno akademikom B.A. Kazanskim.

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVICH, V.G.; CHENETS, V.V.

Isomeric transformations of alkylbenzenes. Part 1: Synthesis of 1-6-C^{14} 1/6-phenylcyclohexane and 1-C^{14}-phenylcyclohexane. Zhur. org. khim. 1 no. 12:2151-2154 D '65 (MIRA 19:1)

1. Submitted November 11, 1964.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

VYKHOVANETS, V.V.; LIPOVICH, V.G.; KNUTOV, V.I.; CHENETS, V.V.; BLYUM, O.I.; KALECHITS, I.V.

Syntheses of methylcyclohexanes labeled with carbon-C^{14} in positions 1,2,3,4, and 7. Zhur.VKHO 10 no.4:465-466 '65. (MIRA 18:11)

1. Institut nefte- i uglekhimicheskogo sinteza.

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LIPOVICH, Ye.

The third altitude. Kryl. rod. 14 no.11:23 N '63. (MIRA 16:11)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

SOV/85-58-12-6/38

AUTHOR: Lipovka, A., Chief, Municipal Aviation Sports Club, Leningrad

TITLE: Great Patriotic Lift (Bol'shoy patrioticheskiy pod''yem)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 12, p 3 (USSR)

ABSTRACT: The author tells of the records established by members of his club in parachute jumping and model aircraft building. He mentions G. Andreicheva, top woman parachutist and prize winner, worker at the "Pervomayskaya" Factory.

ASSOCIATION: Gorodskoy aviatsionno-sportivnyy klub (Municipal Aviation Sports Club) Leningrad

Card 1/1

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVKA, A.

Facsimile transmission of synoptic and ice charts servicing sea navigation in the western sector of the Arctic. Mor. flot 23 no.7:16-17 Jl '63. (MIRA 16:8)

1. Nachal'nik Diksonskogo rayonnogo byuro pogody.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVKA, L. F.

AID - P-140

Subject : USSR/Aeronautics

Card : 1/1

Author : Lipovka, L. F., Navigator

Title : Some Special Features of Cold Weather Navigation

Periodical : Kryl. Rod., 1, 9 - 10, Ja 54

Abstract : The author describes changes in the appearance of the topography when snow covers the ground. He gives some advice.

Institution : None

Submitted : No date

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVKA, L.F.

ZAPOROSHCHENKO, Stepan Kirillovich; LIPOVKA, L.F., red.; GRIGOR'YEVA, A.I., red.; KARYAKINA, M.S., tekhn. red.

[Aeronavigation; a handbook for aviation clubs] Samoletovozhdenie; posobie dlia aeroklubov. Moskva, Izd-vo DOSAAF, 1957. 199 p. (MIRA 11:7)
(Navigation (Aeronautics))

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

GOL'NEV, V.Ya.; LITOVKA, N.M.; PARIYSKIY, Yu.N.

Results of observations of galactic radio sources at Pulkovo at a wavelength of 6.4 cm. Astron.zhur. 42 no.5:902-917 S-O '65. (MIRA 18:10)

1. Glavnaya astronomicheskaya observatoriya AN SSSR.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

L 8831-65 FBD/EWT(1)/EWG(v)/EEC-4/EEC(t)/EWA(h) Pm-4/Pe-5/Pae-2/Peb/
Pi-4 SSD/AFWL GW/WS

ACCESSION NR: AP4042785 S/0020/64/157/003/0554/0556

AUTHOR: Gol'nev, V. Ya.; Lipovka, N. M.; Pariyskiy, Yu. N.

TITLE: Observation of the radio emission of Jupiter on the 6.5-cm wavelength at Pulkovo

SOURCE: AN SSSR. Doklady*, v. 157, no. 3, 1964, 554-556

TOPIC TAGS: Jupiter, Jupiter radio emission, Jupiter brightness temperature

ABSTRACT: The radio emission of Jupiter on the 6.5-cm wavelength was observed in October and November 1963 with the large Pulkovo radio telescope. A wideband direct-amplification receiver with a parametric amplifier at its input was used as the radiometer. Its sensitivity, at a time constant of 3 sec, was 0.05K. Under the assumption that the flux from radiation source 3C 273 was 27.4×10^{-26} w/m^2 cps at the 6.5-cm wavelength, it was found that the flux from Jupiter was $8.15 \pm 0.8 \times 10^{-26}$ w/m^2 cps, which corresponds to a disk brightness temperature of 324 ± 30K. This is 196K greater than the disk tempera-

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ACCESSION NR: AP4042785

ture from infrared observations (128K). The antenna radiation pattern was determined on the basis of sources 3C 48, 3C 268 and 3C 273, and the results of observations at the 6.5-cm wavelength were compared with the theoretical values of pattern expansion for various models of the radio emission region. It was found that at a distance of $1.5R_{Jupiter}$ from the center of Jupiter, radio emission is virtually nonexistent. On the 75—21-cm band, the dimension of the increased radio emission region is equal to $3D_{Jupiter}$ and remains almost unchanged. At the 6.5-cm wavelength, it is approximately (1.3 plus or minus $0.2)D_{Jupiter}$, and at the 3.02-cm wavelength, the increased radio emission region nearly coincides with the visible disk of the planet. It is also stated that it may now be considered as established that in the decimetric band the increased radio emission emanates from radiation belts surrounding the planet. Moreover, the measurements of Jupiter's dimensions have shown that with an increase in frequency, the radio emission maxima of the belts shift toward the surface of the planet. Under the assumption that the position of Jupiter's magnetic pole is $L_{III} = 195°$, $B = 80°$, it was found that the upper amplitude limit of the flux variation with latitude observed at the 6.5-cm wavelength was about 2%, and that after taking into account the black body

Card 2/3

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L 8831-65

ACCESSION NR: AP4042785

emission at 128K, the polarization of "excess" radiation is lower than 18% at this wavelength. Orig. art. has: 4 figures.

ASSOCIATION: Glavnaya astronomicheskaya observatoriya Akademii nauk SSSR (Main Astronomical Observatory, Academy of Sciences SSSR)

SUBMITTED: 13Mar64 ATD PRESS: 3106 ENCL: 00

SUB CODE: AA NO REF SOV: 003 OTHER: 006

Card 3/3

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

ARONOV, M.I., inzh.; LIPOVKA, V.I., inzh.

Determination of the error of d.c. transformers with control circuit having limited power. Elektrotekhnika 35 no.9:60-62 S '64. (MIRA 17:11)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

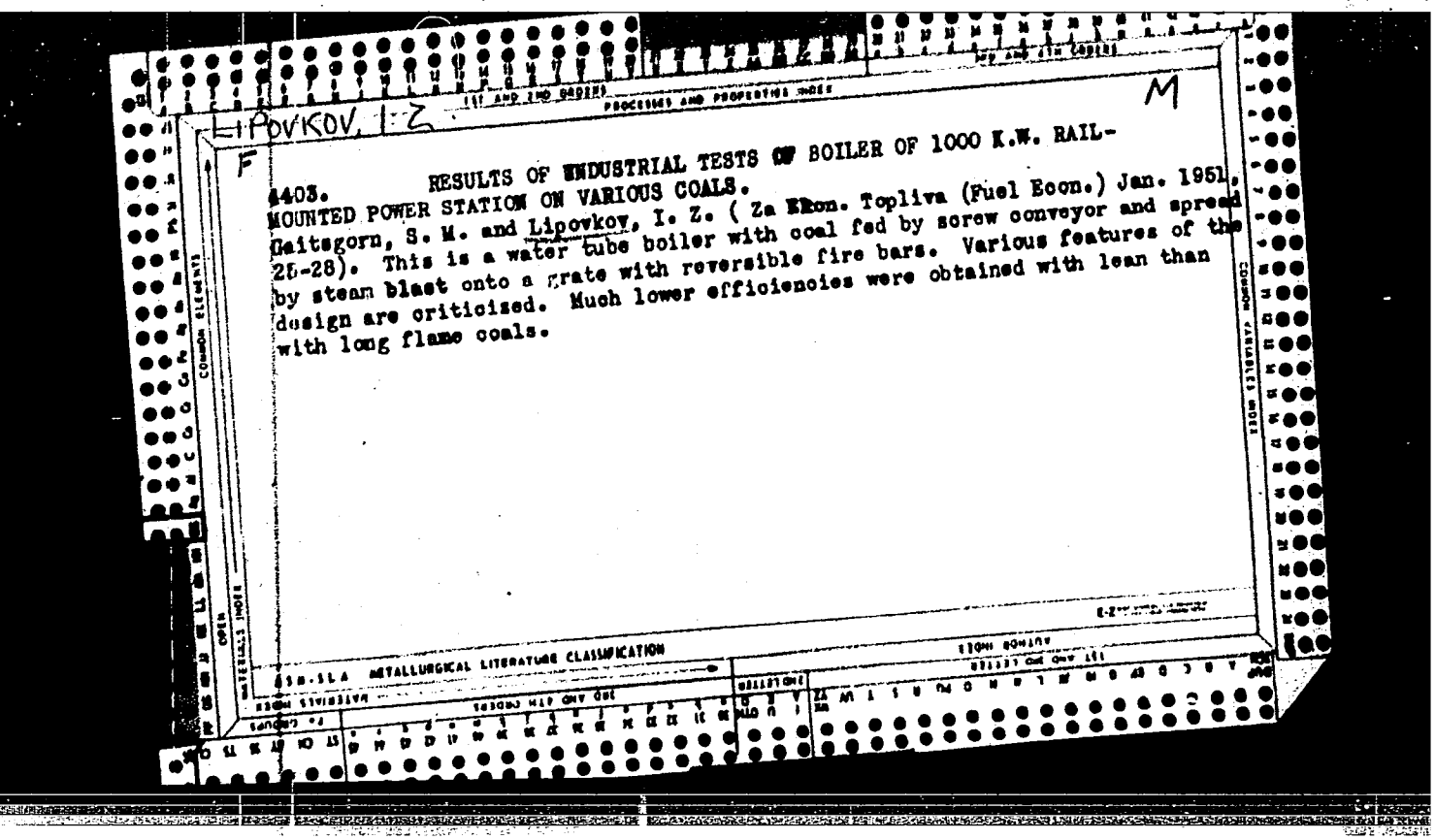
"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

GAYTSGORI, S.M., inzh.; LIPOVKOV, I.A., inzh.

Adjustment of combined dust-fired and grate furnaces. Energetik 7 no.3:9-13 Mr '59. (MIRA 12:4)
(Furnaces)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1



LIPOVKOV, I. Z.

F

4403. RESULTS OF INDUSTRIAL TESTS OF BOILER OF 1000 K.W. RAIL-MOUNTED POWER STATION ON VARIOUS COALS.
Gaitsgorn, S. M. and Lipovkov, I. Z. (Za Rkon. Topliva (Fuel Econ.) Jan. 1951, 25-28). This is a water tube boiler with coal fed by screw conveyor and spread by steam blast onto a grate with reversible fire bars. Various features of the design are criticised. Much lower efficiencies were obtained with lean than with long flame coals.

M

METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

ARONOV, M.I., inzh.; LIPOVKA, V.I., inzh.

Determination of the error of d.c. instrument transformers. Vest. elektroprom 34 no.6:31-34 Je '63. (MIRA 16:7)

(Electric transformers)
(Diesel locomotives—Electric equipment)

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

PLUTSER-SARNO, Yu.N., inzh.; MIKHNEVICH, G.A., inzh.; LIPOVKA, V.I., inzh.; ARONOV, M.I., inzh.; BUDNITSKIY, A.A., inzh.

Improving the circuit of d.c.electric driving for diesel locomotives. Vest.elektroprom. 33 no.1:47-52 Ja '62. (MIRA 14:12)
(Diesel locomotives--Electric driving)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

14(6) SOV/91-59-3-5/22

AUTHORS: Gaytsgori, S.M. and Lipovkov, I.Z., Engineers

TITLE: Adjustment of the Spreader-Grate Chain Stoker (Naladka fakel'no-sloyevoy topki)

PERIODICAL: Energetik, 1959, Nr 3, pp 9-13 (USSR)

ABSTRACT: The authors describe modifications to the feeding mechanism in the VTI-"Komega" furnace, coupled with the type TS-20 boiler, carried out in the Kondopozhskiy Tsellyulozno-bumazhnyy kombinat (Kondopoga Cellulose and Paper Combine), on the recommendations of Candidate of Technical Sciences S.A. Tager. These improvements included side sheet attachments to the feeder hood, in order to obtain an even distribution of fuel over the grate, the redesigning of the pneumatic fuel spreader, and the replacing of the ratchet feed for speed control by reduction gear. Furnace efficiency was thus in-

Card 1/2

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Adjustment of the Spreader-Grate Chain Stoker

creased from 84.1 to 95.24% and that of the boiler from 77.21 to 86%. In conclusion, the authors recommend that the plant producing these furnaces should include the above described improvements in their design. There are 5 diagrams and 1 table.

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

IVANOV, V.P.; LIVSHITS, N.D.; LIPOVOY, A.I.

Efficient design of rod bolting for the Mirgalinsay Mine.
Gor. zhur. no.10:50-53 O '61. (MIRA 15:2)

1. Mirgalimsayskiy rudnik, g. Kentau.
(Kentau region—Mine roof bolting)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

BURTSEV, L.I., kand. tekhn. nauk; LIPOVOY, A.I.

Ways of increasing the effectiveness of reinforced concrete rod bolting. Gor. zhur. no.7:39-42 Jl '65. (MIRA 18:8)

1. Institut gornogo dela im. A.A.Skochinskogo (for Burtsev).
2. Rudnik "Mirgalimsay" (for Lipovoy).

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIVSHITS, N.D.; LIPOVOY, A.I., starshiy inzh. po ratsionalizatsii; LUNEV, I.N.

Practice of and prospects for using self-propelled equipment. Gor. zhur. no.3:20-23 Mr '62. (MIRA 15:7)
(Mirgalimsay region--Mining machinery)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

IVANOV, V.P., mekhanik gruppy po vnedreniyu novoy tekhniki; LIPOVOY, A.I., starshiy inzh. po ratsionalizatsii

Reinforced concrete rod bolting. Gor. zhur. no.3:33-35 Mr '62. (MIRA 15:7)

1. Mirgalimsayskiy rudnik.
(Mirgalimsay region--Mine roof bolting)
(Reinforced concrete construction)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

IVANOV, V.P., elektromekhanik; LIPOVOY, A.I., gornyy inzh.

Modernization of the PML-5 loader in mines of the Achisay Complex Ore Combine. Gor.zhur. no.8:68-69 Ag '62. (MIRA 15:8)

1. Mirgalimsayskiy rudnik.
(Achisay region--Mining machinery)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVOY, G.S.

Electromechanical modeling in problems involving discontinuous streamlined flow of incompressible and compressible fluids. Trudy Sem. po prikl. mat. 1 no.1:112-123 '63.

(MIRA 18:2)

1. Institut matematiki AN UkrSSR, Kiyev.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVOY, G.S. (Kiyev)

Use of electric modeling in constructing a potential gas flow with allowance for its compressibility around a wing profile. Ukr. mat. zhur. 15 no.3:314-320 '63. (MIRA 16:12)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

L 25125-65 EWP(m)/EWT(1) Pd-1
ACCESSION NR: AT5002840 S/3123/64/000/001/0086/0090 15

AUTHOR: Lipovoy, G.S. 13+1

TITLE: The solution of the direct problem of aerodynamics for a compressible current without circulation

SOURCE: AN UkrSSR. Institut matematiki. Voprosy matematicheskoy fiziki i teorii funktsiy, no. 1, 1964, 86-90

TOPIC TAGS: aerodynamics, direct aerodynamic problem, compressible fluid flow, velocity field transformation, elliptical flow

ABSTRACT: The velocity distribution around a profile immersed in a current of compressible fluid (direct problem) is describable by a velocity potential satisfying a nonlinear equation. The Chaplygin hodograph transformation reduces the nonlinear equation to a system of two linear ones which serve as the basis for the derivation of formulas which, for every profile given within the non-circulating incompressible fluid, yield a corresponding profile within the plane of the compressible fluid current (N.A. Slezkin, T. Karman, Kh. S. Tzyan). Consequently, the velocity distribution around the resulting profile may be obtained by recalculation from the distribution around the given profile (see, e.g., R.

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L 25125-65
ACCESSION NR: AT5002840

Mieses, Mathematical theory of compressible fluid flow). Starting from the Karman-Tzyan equation, the author derived a formula which allows the establishment of a profile within the plane of an incompressible fluid which corresponds to the profile given within the plane of a compressible fluid. The direct problem then reduces to a simple conversion from the known solution in an incompressible flow to the desired solution in a compressible flow, and the author calculates, as an example, the case of non-circulating flow around an ellipse in which the larger axis is in the direction of the current and the ratio of the axes is equal to 0.5. The velocity distribution in incompressible flows may be obtained easily by electro-modeling on conducting paper. Calculations using integrators show that the third approximation already yields satisfactory results. The accuracy of the final results depends directly on the accuracy of the initial velocity values assumed in the corresponding incompressible flow. Orig. art. has: 10 formulas, 1 figure, and 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: ME

NO REF SOV: 004 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

L 26315-65 EWT(d) Pg-4 IJP(c)

ACCESSION NR: AP5005212 S/0041/65/017/001/0112/0117

AUTHOR: Lipovoy, G. S. (Kiev)

TITLE: Construction of quasi-conformal mappings for certain problems of gas dynamics

SOURCE: Ukrainskiy matematicheskiy zhurnal, v. 17, no. 1, 1965, 112-117

TOPIC TAGS: quasi conformal mapping, compressible flow, gas dynamics, airfoil quasi conformal mapping

ABSTRACT: An analysis is given for the problem of quasi-conformal mapping of a region which represents the exterior of an airfoil onto the interior of the unit circle under the assumptions that the conformal mapping of this region is known and that the Mach number and circulation of the flow are given. The method developed by L. I. Sedov is used for constructing the transformation for quasi-conformal mapping. For the incompressible flow past the airfoil, the following transformation function is used

$$\frac{Z}{A} = -\frac{1}{t} + \gamma_1 t + \ldots, \frac{\gamma_n}{n!}t^n + \ldots - \lambda\left(-\frac{1}{t} + \bar{A}_1\bar{t} + \ldots \frac{\bar{A}_n}{n}\bar{t}^n + \ldots\right) \quad (1)$$

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L 26315-65

ACCESSION NR: AP5005212

where Λ is a scale factor, λ is a parameter depending on the Mach number, γ are parameters depending on λ and the circulation, and the coefficients $\bar{A}_1$, $\bar{A}_2$,... $\bar{A}_n$,... which can be expressed in terms of γ and λ according to a certain scheme. The relation between the polar angle θ in the plane L of the conformal mapping and the polar angle in the plane Z of the quasi-conformal mapping is sought in the form

$$\varphi = \theta + \lambda\theta_1 + \lambda^2\theta_2 + \lambda^3\theta_3 + \ldots \qquad (2)$$

where θ_1, θ_2, θ_3... are real periodic functions with the period 2π. The method of successive determinations of the unknown functions θ_1, θ_2,..., θ_n and of the corresponding approximate values of γ and A is presented. By substituting the derived values into (1), the transformation for the quasi-conformal mapping is obtained and the difference $\Delta\varphi = \varphi - \theta$ is established. Compressible flow with circulation past a circular cylinder is analyzed as an illustration. Orig. art. has: 18 formulas. [LK]

ASSOCIATION: none

SUBMITTED: 29May64 ENCL: 00 SUB CODE: ME

NO REF SOV: 002 OTHER: 000 ATD PRESS: 3187

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVOY, G.S. (Kiyev)

Construction of quasi-conformal mappings for certain gas dynamics problems. Ukr. mat. zhur. 17 no.1:112-117 '65.
(MIRA 18:3)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

L 36467-66 EWP(m)/EWT(1)/EWT(m)/T/EWP(w) EM/WW/DJ/GD

ACC NR: AT6016716 (N) SOURCE CODE: UR/0000/65/000/000/0033/0040

AUTHOR: Lipovoy, G. S. 49

ORG: Institute of Mathematics AN UkrSSR (Institut matematiki AN UkrSSR)

TITLE: Flow around a plate near a solid wall 20

SOURCE: AN UkrSSR. Gidrodinamika bol'shikh skorostey (High speed hydrodynamics), no. 1. Kiev, Izd-vo Naukova dumka, 1965, 33-40

TOPIC TAGS: fluid flow, boundary layer theory, incompressible fluid

ABSTRACT: The article considers the plane flow of an ideal incompressible fluid around a thin shape near a solid wall. It is assumed that the wall is of rectangular form. The problem then reduces to flow around two shapes located symmetrically with respect to a line representing the wall. The OX axis of the complex plane is directed along the wall and it is assumed that at infinity the fluid moves in a direction parallel to the OX axis. It is also assumed that the shape has the form of an infinitely thin plate located at an angle α to the OX axis (See Fig. 1)

Card 1/2

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ACC NR: AT6016716

Figure 1

The parametric equation of the plate has the form

$$\varphi(t) = -\frac{b}{2}(1+ik)\cos t + iC, \quad (6)$$

where k = tan α; b is the projection of the plate on the OX axis; C = h + kb/2 is a constant; h is the distance from the edge of the plate to the OX axis. The article goes on to an anlytical solution of the above problem. Orig. art. has: 16 formulas, 2 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 30Sep65/ ORIG REF: 002

Card 2/2

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

L 38274-66 EWT(1)/EWP(m) WW/GD

ACC NR: AT6016729 (N) SOURCE CODE: UR/0000/65/000/000/0157/0166

AUTHOR: Lipovoy, G. S.

59
Cr-1

ORG: Institute of Mathematics AN UkrSSR (Institut matematiki AN UkrSSR)

TITLE: Construction of the flow potential of a compressible fluid around a grid of shapes using electrical simulation

SOURCE: AN UkrSSR. Gidrodinamika bol'shikh skorostey (High speed hydrodynamics), no. 1. Kiev, Izd-vo Naukova dumka, 1965, 157-166

TOPIC TAGS: flow analysis, compressible fluid, simulation

ABSTRACT: The method of calculation described is based on a consideration of the infinitely associated regions g and G of the complex variables $t=\xi+i\eta$ and $Z = X + iY$. (See Fig. 1). Let the axis of the grid form an angle β with the axis η. The complex spacing of the gridwork is represented by $\tau=le^{-i\beta}$. It is assumed that the form of the profile in G is given and that infinitely distant points in g and G correspond to each other. The reflected function is then written in the form

$$Z=at+P(t)=at+\sum_{n=-\infty}^{n=-1} a_n t^n, \qquad (1)$$

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ACC NR: AT6016729

where $$P(t) \doteq \frac{\pi}{\tau} \sum_{n=0}^{\infty} \frac{(-1)^n}{n!} \left[\frac{1}{2\pi i} \int_c P(w) w^n dw \right] \frac{d^n}{dt^n} \operatorname{cth} \frac{\pi t}{\tau}. \quad (2)$$

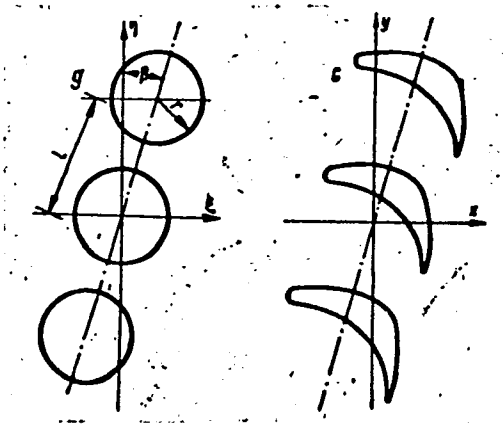

Figure 1

The article then proceeds to a description of the method of electrical simulation of the problem, stated in the above terms. Orig. art. has: 33 formulas and 4 figures.

SUB CODE: 20/ SUBM DATE: 30Sep65/ ORIG REF: 008/ OTH REF: 001

Card 1/1

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVOY, I.P.; ALFEROVA, A.N.

Advanced equipment for electroplating. Mashinostroitel' no.9:33 S '65. (MIRA 18:12)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

1. LIPOVOY, A. N.

2. USSR (600)

4. First Aid In Illness And Injury

7. Treatment of small injuries at a rural feldsher aid station. Fed'd. i akush. no. 12 1952.

9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVOY, I.P.

Pneumatic press for indenting inscriptions. Mashinostroitel' no.2:25 F '62. (MIRA 15:2)
(Marking devices)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVSCAK, R.

Yugoslavia (430)

Technology

The removal of mercaptans from gasoline; a review of the process. p. 181. NAFTA. Vol 3, No 7, July 1952.

East European Accessions List. Library of Congress. Vol 2, No 3, March 1953

UNCLASSIFIED

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

V-3 on
Isomerization
LIPOVSCAK, R.

Isomerization

1306. The isomerization of butane. R. Lipovscak. *Nafta* (*Yugoslavia*), April 1953, 4, 115-19.—The general chemistry of butane isomerization and the main features of the present day commercial processes for butane isomerization are briefly reviewed. (Author's Abstract.)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

I. IMOVSCAK, K.

Distr: 4E3d

Desulfurization of gasoline with native bauxites. Dušan Djurkljević and Radovan Ilijovičak (Inst. naftu, Zagreb). *Nafta* (Yugoslavia) 9, 283-93(1958).—A straight-run Iraq gasoline (35–182° ASTM boiling range) was desulfurized with Pula and Lozovac bauxites (3–4 mesh), dried at 120°, and activated 3 hrs. at 400–500° with air and sat'd. steam. The treatment carried out at 360–410° with space velocities of 1.3–4.7 vol./vol./hr. reduced the S content by 88–95% and yielded 98 wt. % of a gasoline with a knock rating 3–4 units above that of the untreated gasoline. N. Plavšić

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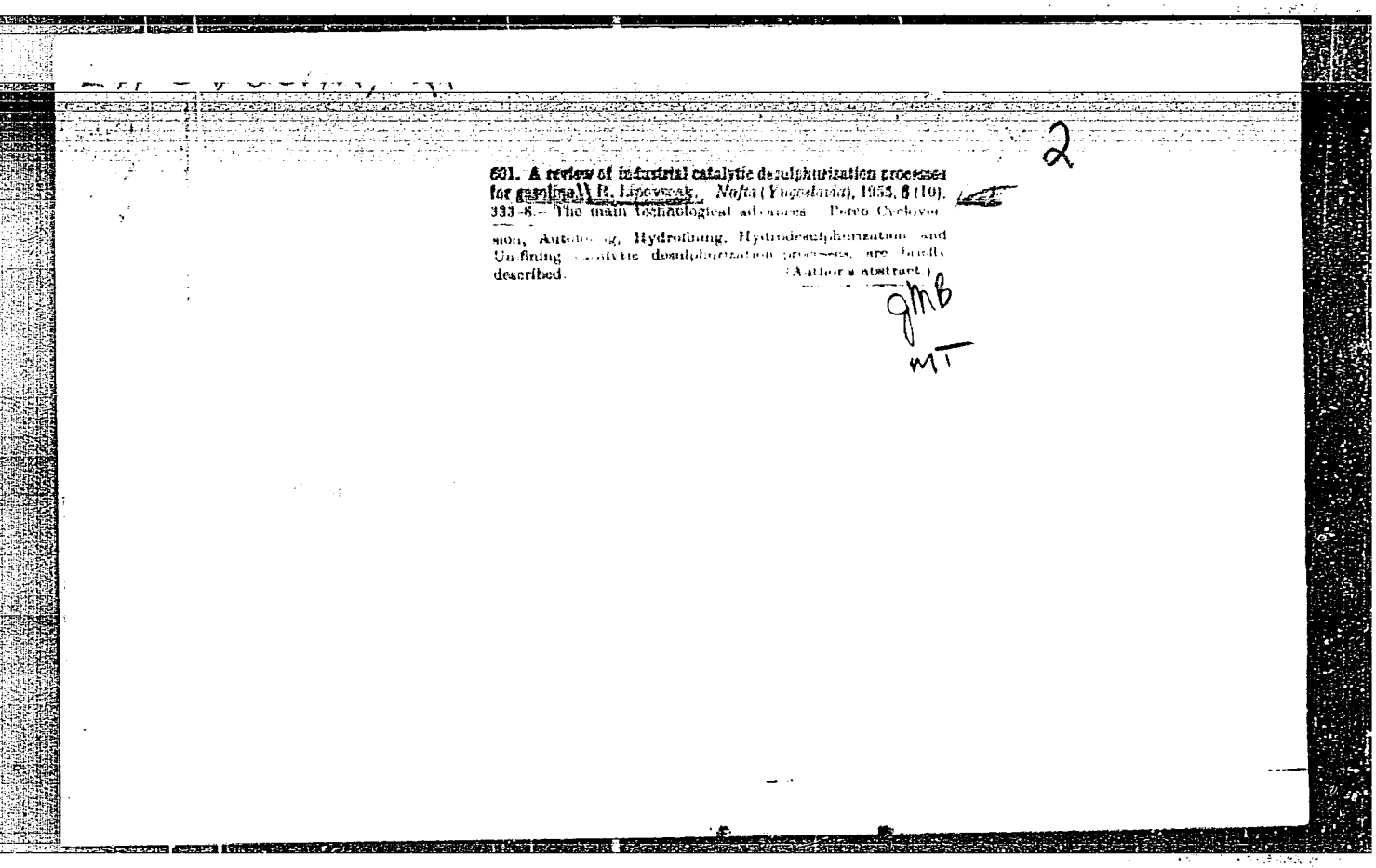

601. **A review of industrial catalytic desulphurization processes for gasoline.** I. Ungvarai. *Nafta (Yugoslavia)*, 1955, 6 (10), 933–8.—The main technological advances in Perco Cyclovision, Autofining, Hydrofining, Hydrodesulphurization and Unifining catalytic desulphurization processes are briefly described. (Author's abstract.)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

1030. Deparaffination of oil products. I. Kulaev and B. Lapovsak. *Nafta (Yugoslavia)* 1956, 7, 731. [illegible]

The principles of the deparaffination of oil products are theoretically discussed. A short history of the development of the experimental, as well as applied techniques is given. Detailed descriptions of the most important methods [illegible]

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

COUNTRY : YUGOSLAVIA H
CATEGORY : Chemical Technology. Chemical Products and Their Uses. Part 3. Processing of Natural*
ABS. JOUR. : RZKhim., No. 1 1960, No. 2468

AUTHOR : Djurdjevic. D.; Lapovcak, R.
INST. : -
TITLE : Desulfurization of Gasoline with Yugoslav Bauxite

ORIG. PUB. : Nafta (Jugosl.), 1958, 9, No 9, 255-260

ABSTRACT : The results of desulfurization, on two bauxite samples, of direct distillation** gasoline from Iraqian petroleum containing 0.008 wt.% of S (including 0.0156 elementary, 0.0109 mercaptan, 0.0250 disulfide and 0.0141 sulfide) are described. With a volumetric velocity (VV) of

*Gases and Petroleum. Motor and Rocket Fuels. Lubricants
**/Under normal pressure/

CARD: 1/3

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

COUNTRY : II
CATEGORY :

ABS. JOUR. : RZKhim., No. 1 1960, No. 2460

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : 2.0 hr^{-1}, atmospheric pressure and one hour du-
cont'd ration of experiment, the depth of desulfurization (DD) increases from 91.7 to 94.5% with an increase of temperature from 342 to 410°, and the mercaptans are 100% removed (desulfurization on bauxite containing 51.83 wt.% of Al_2O_3 and 24.08 wt% of Fe_2O_3). At a temperature of 467°, DD decreased to 71.3% and gasoline contained 0.0004% of mercaptan S. The gas yield

CARD: 2/3

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

COUNTRY :
CATEGORY :

ABS. JOUR. : RZKhim., No. 1 1960, No. 2460

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : Is 1-1.5%, and it contains 64-70% H_2 and a small quantity of H_2S. It was found that at 390-410° the optimal VV equals ~2.0 hr^{-1}. The testing of bauxite for the duration of work at VV of 2.25 hr^{-1} showed that after 27 hours DD decreases to 80%. Desulfurization increases the octane number of gasoline by 3-4 points.-- M. Pavlovskiy

CARD: 3/3

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

Radovan Lipovšćak

4

Investigation of native natural catalysts for the catalytic cracking of heavy gas oil distillates from native crude oils. Franc Šef and Radovan Lipovšćak (Inst. naftu, Zagreb). *Nafta* (Yugoslavia) 9, 351–9(1958).—Results of lab. catalytic cracking expts. on vacuum distillates from Lendava, Kloštar, Mramor Brdo, and Bunjani crude oils with natural catalysts prepd. by acid treatment of Lješljan and Glinovac clays are reported.
N. Plavšić

GW

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVSEK, Leopold

A thousand new subscribers for the newspaper publishing enterprise Delo; a great success. PTT zbor 16 no.11:258-259 N '62.

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

PLACKOVA, Z.; HAIS, I.M.; Technicka spoluprace: LIPOVSKA, M.

Distribution and excretion of the ganglioplegics N,N,1,2,2-pentamethylcyclohexylamine and N,N,2,2,3-pentamethyl-3-butylamine after peroral administration in rats. Cesk. farm. 12 no.5:242-246 Je '63.

(AMINES) (GANGLIONIC-BLOCKING AGENTS)
(METABOLISM) (URINE) (BLOOD CHEMICAL ANALYSIS)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVSKAYA, A. I.

"Functional and Reactive Characteristics of the Organ of Vision in Disabled Veterans of the Great Fatherland War. Based on Materials of the Clinic of Diseases of the Eye, Kuban' Medical Inst." Stalingrad State Medical Inst, Krasnodar, 1955. (Dissertation for the Degree of Candidate in Medical Sciences)

SO: M-955, 16 Feb 56

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVSKAYA, A.I., kand. med. nauk

Effect of neuroplegic and ganglionic blocking agents on glaucoma patients. Sbor. nauch. trud SOGMI no.14:68-76 '63. (MIRA 18:9)

1. Iz kafedry glaznykh bolezney (zav.- prof. D.V. Ochapovskaya) Kubanskogo meditsinskogo instituta.

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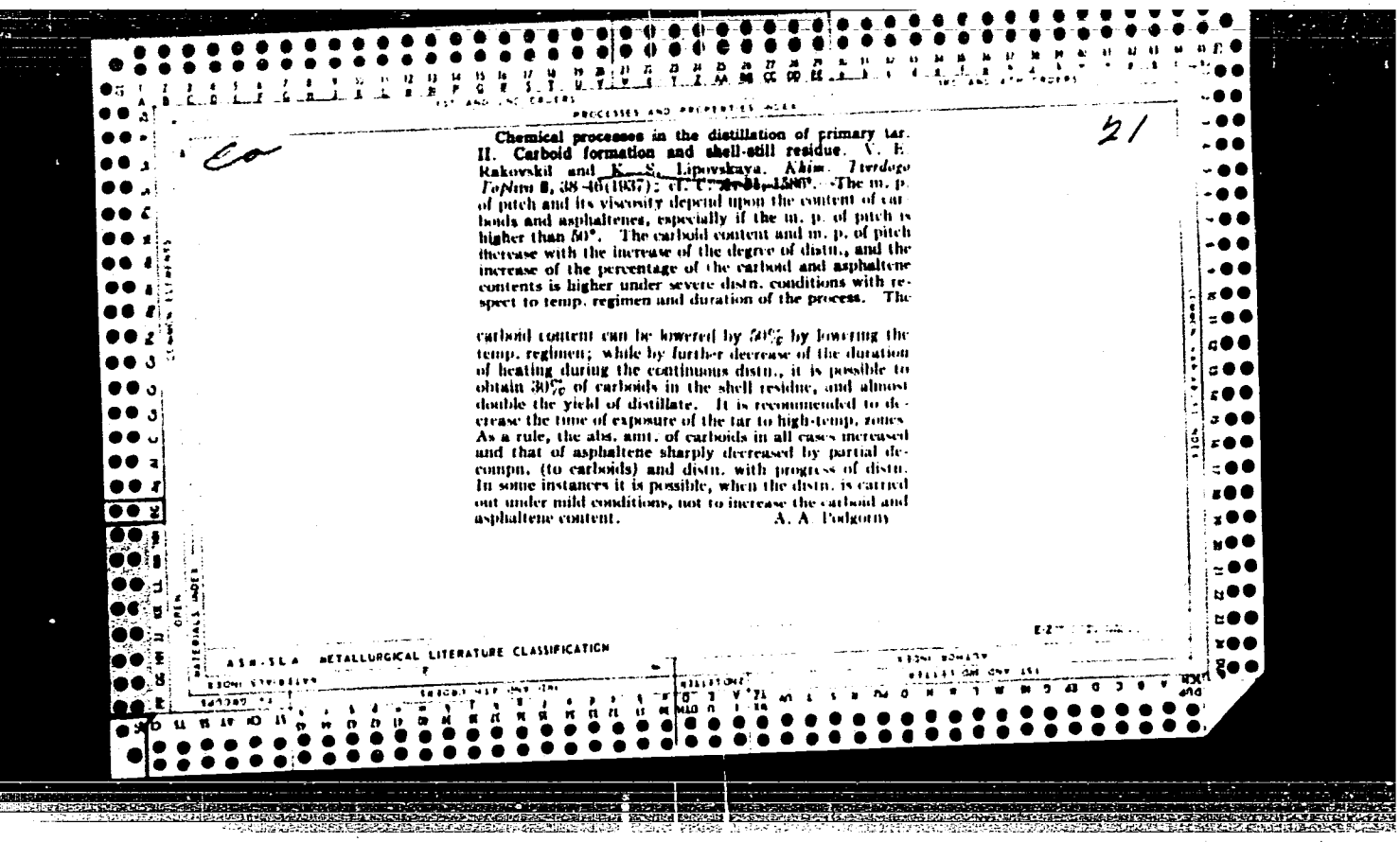

Chemical processes in the distillation of primary tar. II. Carboid formation and shell-still residue. V. E. Rakovskii and K. S. Lipovskaya. *Khim. Tverdogo Topliva* **8**, 38-46(1937); cf. C. [illegible]. The m. p. of pitch and its viscosity depend upon the content of carboids and asphaltenes, especially if the m. p. of pitch is higher than 50°. The carboid content and m. p. of pitch increase with the increase of the degree of distn., and the increase of the percentage of the carboid and asphaltene contents is higher under severe distn. conditions with respect to temp. regimen and duration of the process. The carboid content can be lowered by 50% by lowering the temp. regimen; while by further decrease of the duration of heating during the continuous distn., it is possible to obtain 30% of carboids in the shell residue, and almost double the yield of distillate. It is recommended to decrease the time of exposure of the tar to high-temp. zones. As a rule, the abs. amt. of carboids in all cases increased and that of asphaltene sharply decreased by partial decompn. (to carboids) and distn. with progress of distn. In some instances it is possible, when the distn. is carried out under mild conditions, not to increase the carboid and asphaltene content. A. A. Pavlovich

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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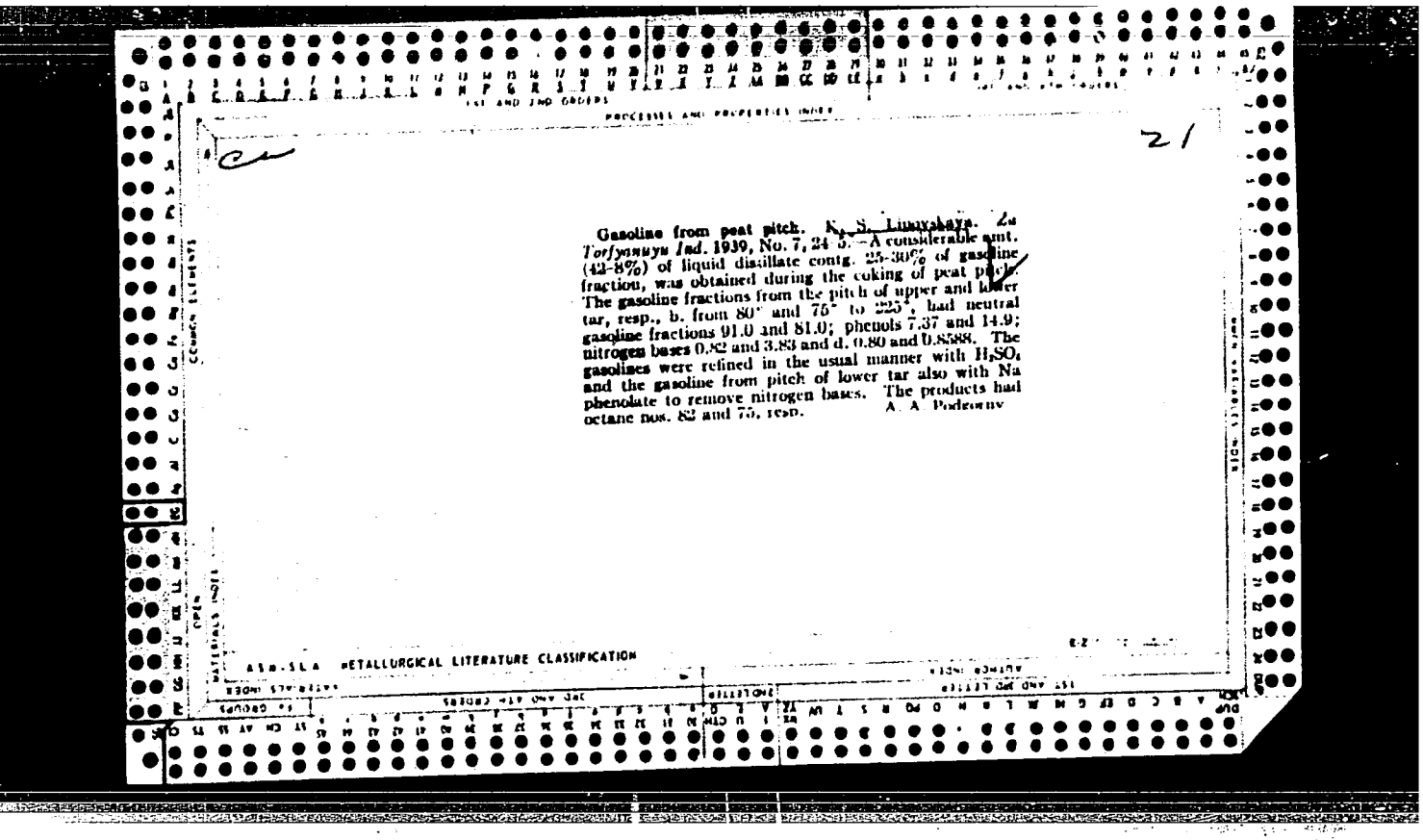

Gasoline from peat pitch. K. S. Linyaeva. *Torfyanaya Ind.* 1939, No. 7, 24-5.—A considerable amt. (42-8%) of liquid distillate contg. 25-30% of gasoline fraction, was obtained during the coking of peat pitch. The gasoline fractions from the pitch of upper and lower tar, resp., b. from 80° and 75° to 225°; had neutral gasoline fractions 91.0 and 81.0; phenols 7.37 and 14.9; nitrogen bases 0.82 and 3.83 and d. 0.80 and 0.8588. The gasolines were refined in the usual manner with H_2SO_4 and the gasoline from pitch of lower tar also with Na phenolate to remove nitrogen bases. The products had octane nos. 82 and 75, resp.
A. A. Podeonov

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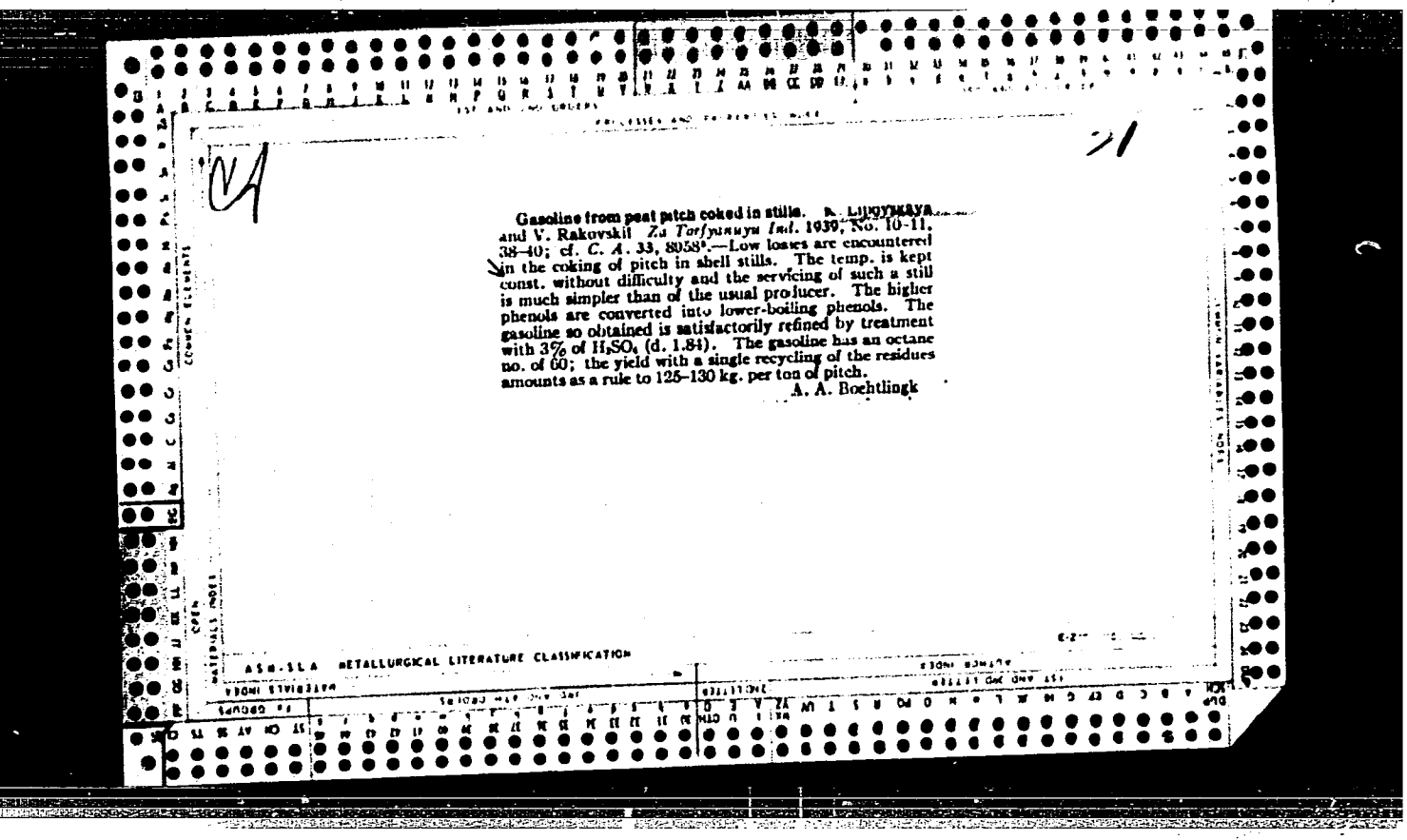

CA

21

Gasoline from peat pitch coked in stills. K. Lipovskaya and V. Rakovskii *Za Torfyanuyu Ind.* 1939, No. 10-11, 38-40; cf. *C. A.* 33, 8958⁹.—Low losses are encountered in the coking of pitch in shell stills. The temp. is kept const. without difficulty and the servicing of such a still is much simpler than of the usual producer. The higher phenols are converted into lower-boiling phenols. The gasoline so obtained is satisfactorily refined by treatment with 3% of H_2SO_4 (d. 1.84). The gasoline has an octane no. of 60; the yield with a single recycling of the residues amounts as a rule to 125–130 kg. per ton of pitch.

A. A. Boehtlingk

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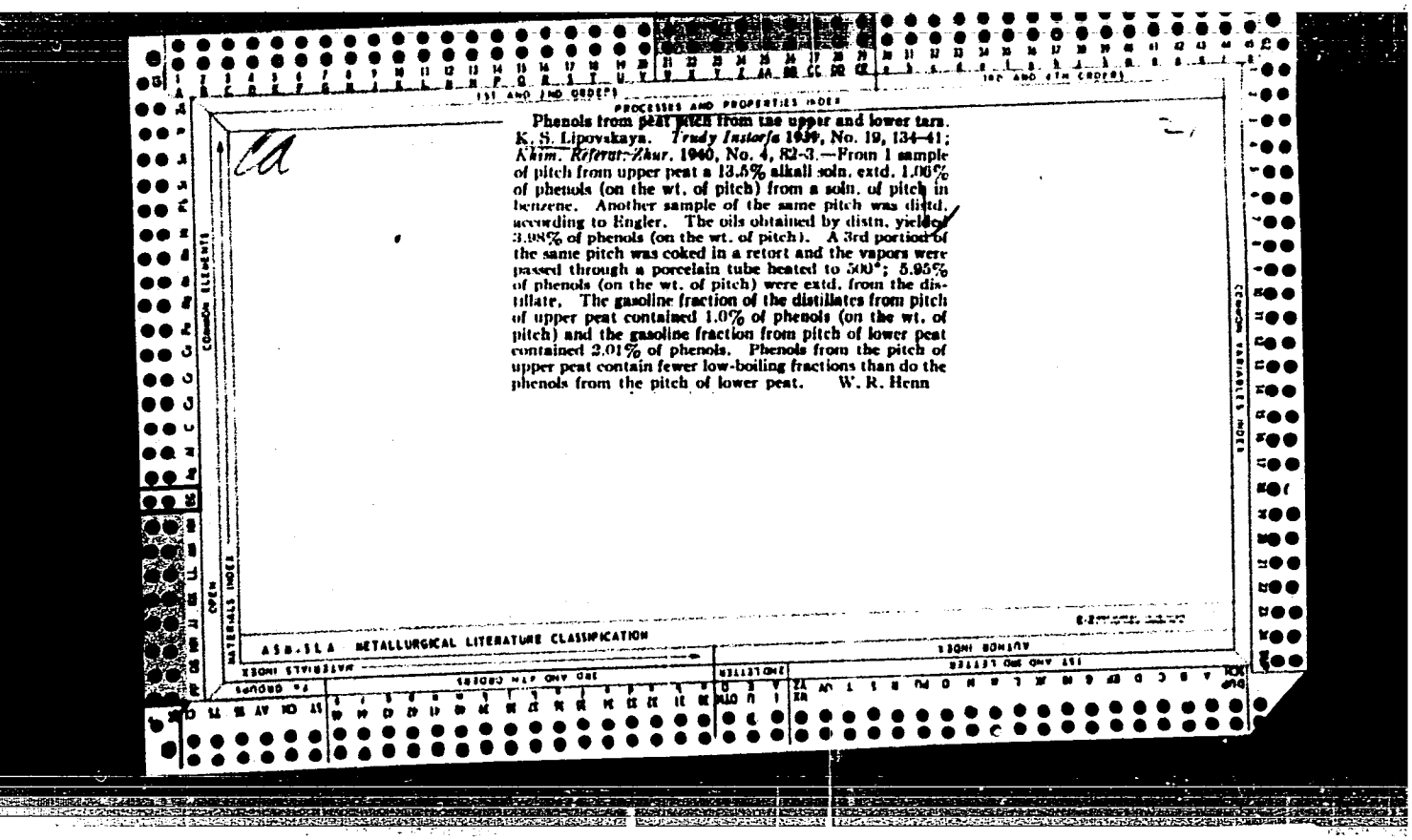

PROCESSES AND PROPERTIES INDEX

Phenols from peat pitch from the upper and lower tars. K. S. Lipovskaya. *Trudy Instorfa* 1939, No. 19, 134–41; *Khim. Referat. Zhur.* 1940, No. 4, 82-3.—From 1 sample of pitch from upper peat a 13.5% alkali soln. extd. 1.00% of phenols (on the wt. of pitch) from a soln. of pitch in benzene. Another sample of the same pitch was distd. according to Engler. The oils obtained by distn. yielded 3.98% of phenols (on the wt. of pitch). A 3rd portion of the same pitch was coked in a retort and the vapors were passed through a porcelain tube heated to 500°; 5.95% of phenols (on the wt. of pitch) were extd. from the distillate. The gasoline fraction of the distillates from pitch of upper peat contained 1.0% of phenols (on the wt. of pitch) and the gasoline fraction from pitch of lower peat contained 2.01% of phenols. Phenols from the pitch of upper peat contain fewer low-boiling fractions than do the phenols from the pitch of lower peat. W. R. Henn

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVSKAYA, K.S.

Effect of pitches and their components on the mechanical strength of core mixes in casting. K. S. Lipovskaya. *Trudy Vsesoyuz. Nauch.-Issledovatel. Instituta Gidrolizn. i Sulfitno-Spirtovoi Promysh. i Gazov. Promysh. (VNIIGS)* 1, 121-32(1948).—Peat pitch can be used to replace completely the vegetable oil in core mixes, with the amt. of pitches 1-3% greater than the oils. While both the soft and hard pitches can be used, the latter offer advantages in transportation and produce less gas and can be obtained from the former either by deeper distn. or by oxidation. The pitches have been sepd. into carboids, carboxylic acids, phenols, paraffinic oils, and waxes which impart no strength to the core mixes, and oxidized and reduced asphaltenes which have only a slight binding efficiency. The cohesion was attributed to silica gel gums of unknown compn. and to olefins. W. M. Sternberg

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVSKAYA, K. S.

Powdered binder for foundry cores, K. S. Lipovskaya, B. A. Arbuzov, and V. Z. Khelain. *Liteinoe Proizvodstvo* 1952, No. 12, 2-6.—Good results were obtained with a core binder made of 40 weight parts of pitch, 40 parts of concd. sulfite liquor, and 20 parts of clay ground to 40 mesh. The nature of pitch is immaterial, provided it has a m.p. of 80°C. min. About 5% of the binder is added to the sand, resulting after baking at 240° in cores having a tensile strength of at least 8 kg./sq. mm.

J. D. Gat

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

Cryoscopic method for the determination of aromatic hydrocarbons in the kerosine gas oil fractions of the products from destructive hydrogenation of [illegible]

[illegible]

[illegible] with this detn. The unsat. hydrocarbons were removed by 5-99.9% H_2SO_4, for 5 min., settled, and sepd. from the H_2SO_4. The method for detg. sulfonatable hydrocarbons is as accurate as the chromatographic method, and the av. error was found to be less than ±2%. The method is simple and requires only a 0.2-0.4 ml. sample. M. Hoerdt

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVSKAYA, K.S.

?

1596. PRODUCTION OF STABLE HEAT-RESISTANT SYNTHETIC CERESINE.
Khalfets, E.M. and Lipovskaya, K.S. (Nov. Neft. Tekh., Neftepererab.
(News Petrol. Tech., Treatment [illegible]), 1956, (3), 11-14; Abstr. in Ref. Zh.
[illegible] (Ref. J. Chem., Moscow), 1956, [illegible] ... is reported on the
... [illegible] ceresine
... [illegible]
... the solid ceresine

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

Lipovskaya, K. S.

65-1-10/14

AUTHORS: Kheyfets, Ye. M., Lipovskaya, K. S., Il'in, B.L., and Mukhina, A.V.

TITLE: Synthetic Ceresine, its Properties and Uses. (Sinteticheskiy tserezin yego svoystva i primeneniye).

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel,1958,No.1.pp.52-57. (USSR).

ABSTRACT: During the catalytic hydrogenation of carbon monoxide, products are obtained which contain mainly paraffin hydrocarbons e.g. methane, and also high-molecular hard paraffins (Refs.1-3). The fraction of synthetic hydrocarbons, boiling above 450°C, is called ceresine. This compound is obtained by synthesizing it over a cobalt-thorium catalyst. It consists mainly of n-paraffin hydrocarbons with a small amount of mixtures of oxygen-containing compounds (about 5%). Synthetic ceresine does not contain naphthenic or aromatic hydrocarbons but asphaltenes, resinous and sulphur containing compounds which are characteristic for high-molecular products obtained from crude oil. Industrial ceresine has a molecular weight of about 900, but hydrocarbons with a molecular weight up to 23,000 have been prepared

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under laboratory conditions, by using different catalysts (Ref.4). The synthetic ceresine is a hard, dark-brown substance. The colour is due to admixtures, which can be separated by an absorption process, using bleaching earths, or by treating it with sulphuric acid. Data in Table 1 show that a small change in the molecular weight of synthetic ceresine causes a sharp increase in the density and the viscosity of the material. At 20°C the density varies between 0.91 - 0.92 and the viscosity between 105°C - 110°C varies between 2.80 - 6.20 centistokes. Experiments show that at low concentrations (up to 1%) synthetic ceresine samples, when heating them to a temperature between 60°C - 70°C, can be dissolved in benzene, carbon tetrachloride, toluene, xylene and in synthol fractions (boiling between 80°C - 300°C). The diagram in Fig.1 shows the relationship between the melting point, the molecular weight and the number of carbon atoms in the molecule of a number of n-hydrocarbons. The hardness of synthetic ceresine can be increased by distilling the fraction boiling below 450°C. When synthetic ceresine is added to very soft natural ceresine

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or to paraffins, the hardness of the latter is considerably increased. The synthetic ceresine is not hygroscopic and it can be used for the manufacture of moisture-resistant coating compositions. The compound can also be used for making dielectrics to be used under very inclement meteorological conditions, at temperatures varying from - 60° to + 50°C and when the humidity of air reaches up to 98%. The dielectric properties of synthetic ceresine are very similar to those of natural ceresine. The synthetic compound is practically stable at temperatures below its melting point. At increased temperatures (120°C - 140°C) synthetic ceresine is easily oxidised by oxygen contained in the air, its acid number increases, and therefore it has weakened dielectric properties (Table 6). Experiments were carried out to stabilise synthetic ceresine by adding to it special inhibitors. The influence of various inhibitors on the thermal stability of the synthetic compound is shown in Table 7.

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Synthetic Ceresine, its Properties and Uses. 65-1-10/14

The frost-resisting and anti-corrosive properties of the compound were investigated by NII and VIAM. Synthetic ceresine is used in the form of its alloys in various branches of industry, e.g. in the textile industry, in the paper, timber and leather industries. There are 7 Tables, 1 Figure and 7 References: 4 Russian, 3 German.

ASSOCIATION: VNII NP.

AVAILABLE: Library of Congress.

Card 4/4

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

SOV/81-59-16-58516

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, p 412 (USSR)

AUTHORS: Lipovskaya, K.S., Voznesenskaya, Ye.V., Sochevko, T.I.

TITLE: The Investigation of Paraffin From Zhirnov Petroleum

PERIODICAL: Tr. Vses. n.-i. in-t po pererabotke nefti i gaza i polucheniyu iskusstv. zhidk. topliva, 1958, Nr 7, pp 318-328

ABSTRACT: Samples of paraffin (P) with a m. p. of 55°C were investigated which had been separated from the refined distillate of the autol fraction of Zhirnov petroleum, and of low-melting paraffin (LP) with a m. p. of 36°C separated from the filtrate after deoiling of P. P and LP were devided into fractions by means of complex-formation with urea and adsorption on silica-gel and activated coal. The obtained fractions were analyzed by physical-chemical methods. It has been found that P contains (%) 87 n-paraffins, 12.4 isoparaffins and 0.6 monocyclic aromatic hydrocarbons (AH) with a small admixture of bicyclic AH; LP consists of 48.2 n-paraffins, 1.8 monocyclic AH and 50 of a concentrate of naphthene hydrocarbons. Spectral analysis of P, LP and the fractions confirmed the small content of AH in them.

A. Ravikovich.

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVSKAYA, K.S.; VOZNESENSKAYA, Ye.V.; GEYLIKMAN, Ye.L.; GRYAZNOV, B.V.

Rapid method of determining oil content of paraffin. Trudy VNII NP no.7:352-358 '58. (MIRA 12:10)
(Paraffins) (Lubrication and lubricants)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1"

"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

LIPOVSKAYA, K.S.; VOZNESENSKAYA, Ye.V.

Low-melting paraffin waxes from eastern oils. Khim.i tekh.topl. i masel 7 no.4:25-29 Ap '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva. (Paraffin wax)

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"APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000930030005-1

VOZNESENSKAYA, Ye.V.; LIPOVSKAYA, K.S.

Paraffins and ceresin from Fergana crude oils. Khim. tekh. topl. i masel 8 no.7:12-16 Jl '63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.
(Fergana—Petroleum) (Paraffins) (Ceresin)

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